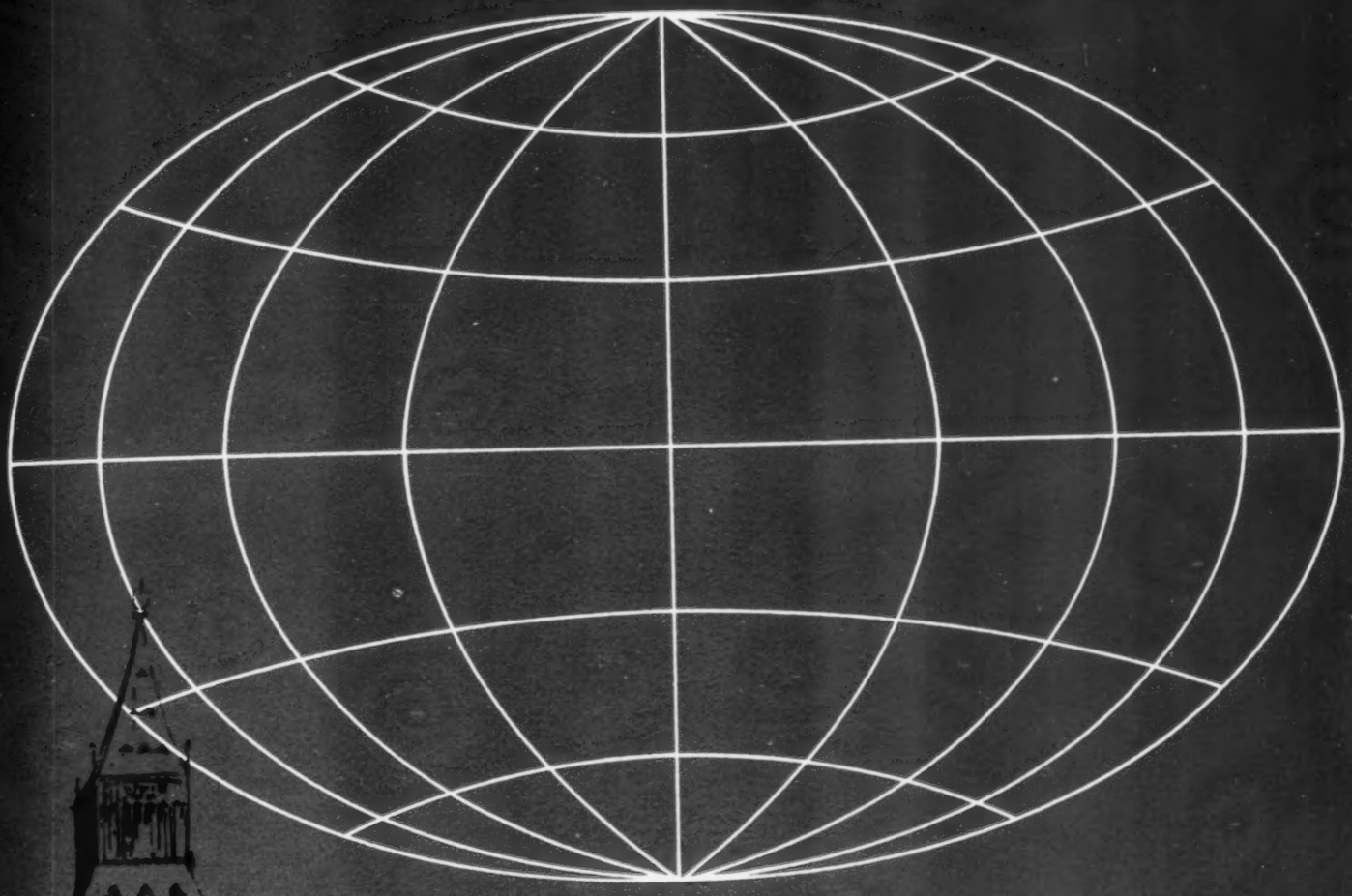
PRINTING PRODUCTION

OCTOBER
1960



U. S. is Pace Setter for British and French Printing

OTHER FEATURES:

TO KEEP PACE, ENGRAVERS JOIN RESEARCH

POWDERLESS COPPER ETCHING REPORT

TRANSFORMATION OF THE WEEKLY PAPER

HOW McCALL'S CONTROLS ITS PAPER

THE PRODUCTION MAGAZINE FOR PRINTERS AND LITHOGRAPHERS

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More than $1,350,000.00 has been invested in Star Quadders by users, in the past four years alone. In the same period of time, these purchasers have increased their profits on "white space" composition by substantially more than $1,350,000.

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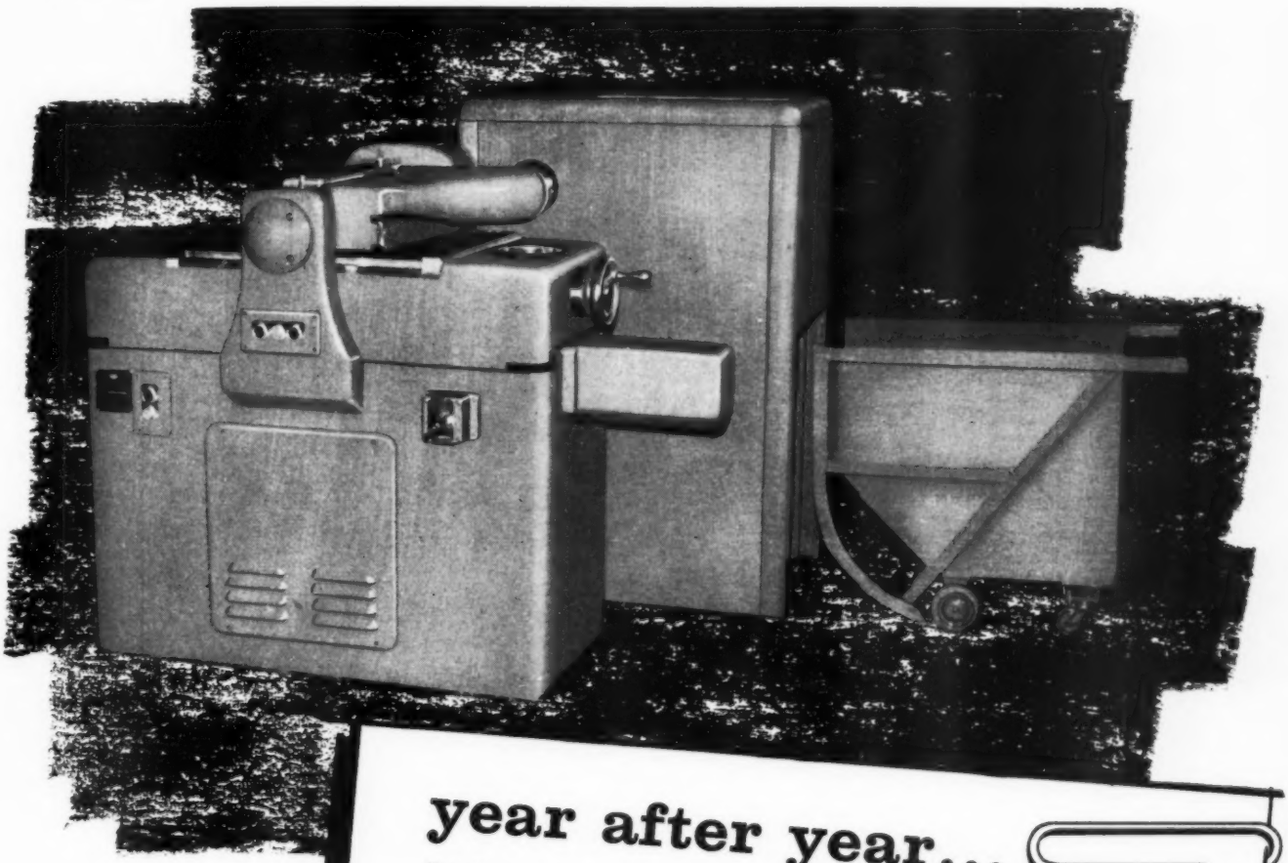

year after year... it's still PREMIER!

Sta-Hi Premier Rotary Shavers manufactured 23 years ago are still "on the job," still delivering quality work with a minimum of maintenance...

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STA-HI CORPORATION

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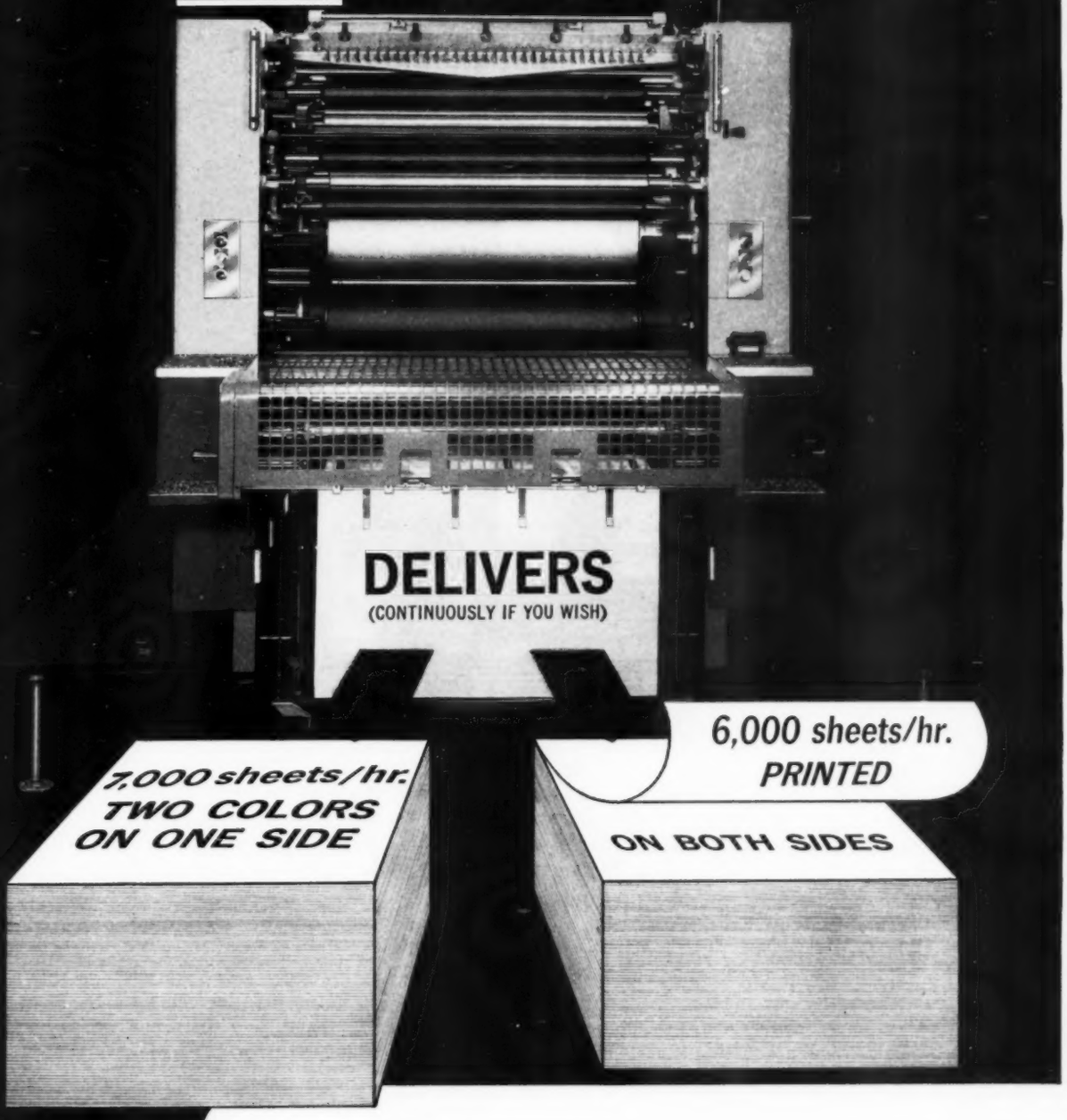
THE DELIVERY END OF THE MILLER P REALLY MEANS BUSINESS!



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On November 8 in this critical year of 1960, the best-informed people in the world will elect a President of the United States. From candidate button to campaign folder, on through 10,000 magazine articles, much of this great decision will be based on printing that has been skillfully produced under the watchful eyes of Production Management Men.

A large and ever-increasing percentage of these production experts read this magazine every month, having learned that on its pages they are sure to find live ideas which increase their job knowledge and efficiency.

OCTOBER 1960
VOL. 91, NO. 1

PRINTING PRODUCTION

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in all major processes of the Graphic Arts industry.

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PRINCIPAL ARTICLES

46 U. S. Sets Pace for British and French Printing
By EDWARD H. OWEN

49 Powderless Copper Etch Guarantees Engravers' Future
By PAUL J. CLARK

50 To Keep Pace, Engravers Join Research
By FRED W. WENTZEL

52 Transformation of the Weekly Newspaper: Part II
By RICHARD L. PINKERTON

54 What to Expect in Starting Photocomposition
By W. N. KUENEMAN

58 Color Makeready Time Saver
By WILLIAM E. KEIGHTLEY

60 How McCall's Keeps Control of Paper
By ANDREW C. WILSON

67 Conversion Methods for Pleasing Litho Color: Part II
By GYAN P. MADAN

REGULAR DEPARTMENTS

Letters to the Editors, 6
Books for the Printing Industry, 6
News Items, 8
Printing Industry Meetings, 24
Helpful Literature, 42
Editorial Page, 45
Research Activities, 63
Idea File, 72
Patents for Printing Industry, 94
Advertisers' Index, 114
Graphic Views, 116

EQUIPMENT & SUPPPLIES

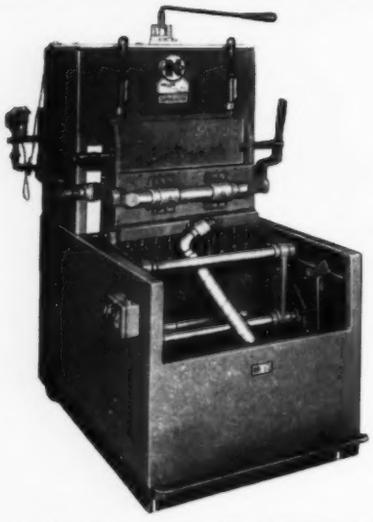
Air Jets for Materials Handling, 80
Vertical Process Camera, 80
Rotogravure Screens, 80
Visual Control Board, 80
Flexographic Press, 83
Motor Driven Arc Lamp, 83
Color Matching Booth, 83
Electronic Counter, 84
Photocopy Paper, 84
Offset Press Perforating Rule, 84
Curved Conveyor, 84
Flexographic Halftone Plates, 86
Dry Diazo Copying Machine, 86
Dual Head Stitching Machine, 86
Paper Micrometer Gauge, 86
Vacuum Contact Frame, 88
Band Saw Strips Slugs, 88
Impregnated Paper Protects Press, 88
Cutting Knife Finishing Process, 88
Photo Processing Unit, 89

TWO FAMOUS global landmarks on this month's cover—Big Ben of London and the Arc de Triomphe of Paris—help draw attention to the exclusive report beginning on page 46 of the printing industries of Great Britain and France. The story is written by Editor Edward H. Owen who traveled through these countries in August to observe printing's progress in many different types of plants. He points out that British and French printers are busy and restless; tells about their current problems, and predicts what will happen in each field of interest. His story will help acquaint you with your counterparts in other lands.

NOLAN NEWS

NOLAN CORPORATION — ROME, NEW YORK

NOW... Faster Cooling, Superior Surfaces With a NOLAN Water-Cooled, Vacuum Equipped Flat Caster



Nolan full page SuperCaster, thermostatically controlled, complete with vacuum-equipped bottom platen and water-cooled stationary platen for faster cooling, uniform high quality casting.

Here in the Nolan full page SuperCaster is a unique, truly superior flat caster design, featuring a 1000 lb. gas or electrically heated metal pot, water cooled top platen for faster, more efficient production and pit-free surfaces, a vacuum equipped bottom platen to prevent mat buckling, with each column individually controlled to insure maximum accuracy in the finished cast. Also features extra large platens (maximum cast of 20½" x 30"), precision ground and balanced for easy operation, automatic safety lock to hold platen securely in make-up position. Also available without melting crucible. Permits fast, efficient, continuous casting. For full information check

ITEM #1

NOLAN MORTISER ELIMINATES DRILL, JIG SAW

Drills, outlines, cuts inside mortises in one quick operation!

NOLAN'S shell plate mortiser and finisher may well be the answer to your make-up bottleneck. Here's a machine that not only does the job of both drill and jig saw, but does it faster and better as well! It outlines irregular shapes, cuts inside mortises, leaving a perfectly vertical cut on either metal or plastic plates, clean and smooth with no need for further finishing. Provides for quick, accurate positioning of work, foot pedal controlled cutting tool, with motor-in-head drive mounted under the table for full view of the work. Powered with ½-hp. high speed motor. For full information check

ITEM #2

production *Briefs...*

REMELT FURNACE BULLETIN

gives all the facts on selecting the 600-lb. and 2000-lb. Series Nolan Remelters, and a host of remelting accessories to speed production. Check **ITEM #3**

LOW-COST, QUALITY PROOFING

NOLAN'S "Master-Proofer" press proves any thickness of paper automatically. Extra large #3 press takes a full-page chase. Also available with self-inking attachment. For full information check **ITEM #4**

DOUBLE INGOT OUTPUT

Nolan 8 and 16-Cavity ingot molds are water cooled to hasten hardening, permit near-continuous casting of Linotype and Monotype ingots. Check **ITEM #5**

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LETTERS TO THE EDITORS

I read with satisfaction the articles authored by Collier A. Elliott and Paul D. Doebler in the recent issues (April-June) of PRINTING PRODUCTION. I considered it a fine series and a full expression of the values of a work measurement system.

Vincent J. Toolan, Chief Engineer
Norcross, Incorporated
New York, N. Y.

BOOKS for the PRINTING INDUSTRY

Photo-Offset Fundamentals

Photo-Offset Fundamentals is a basic manual for the beginner in the field of lithography. Specifically, it has been prepared for the worker, student, apprentice, salesman and buyer who desires a fundamental working knowledge of offset printing.

The author is Graphic Arts high school instructor John E. Cogoli, who briefly touches upon most aspects of lithography. Chapters include descriptions and elementary instructions on job planning, proofreading, stripping, platemaking, presswork, etc.

A well rounded basic work on lithographic operations, the book contains a great number of illustrations of both equipment and operations.

Appendices contain information on use and care of drawing instruments, how to read micrometers, explanations on humidity and other useful tables.

The book is hardbound and contains 209 pages. Copies may be ordered from McKnight & McKnight Publishing Co., Bloomington, Ill. Price is $4 80.

Eastern Edition— Blue Book

The Eastern edition of the 1960-61 *Printing Trades Blue Book* has been published by A. F. Lewis & Co., New York. The publication lists printing plants, bookbinders, typographers and other Graphic Arts firms and suppliers which are located in the 17 Eastern Seaboard states from Maine to Florida. Metropolitan New York and New Jersey are not included because they appear in a separate edition.

Each listing includes the firm name, year established, address, names of principals and line of business. Hardbound and containing 856 pages, the book may be purchased for $20 plus postage from A. F. Lewis & Co., 147 Fourth Ave., New York 3.

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HEIDELBERG
CYLINDER
"Good we figured this job for the Heidelberg, or we'd have been outpriced."
— Ted Huerlander, Sales Representative
"If there's any profit in a job, the Heidelberg will find it."
— Freeman Craw, Vice President

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New York City Display Room — 180 Varick Street

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NEWS ITEMS

Calligrapher Joins Carnegie Tech Staff—Arnold Bank, noted calligrapher and graphic designer, has joined Carnegie Institute of Technology, Pittsburgh, as an associate professor of Graphic Arts. Previously, Bank has taught at the Brooklyn Museum Art School, Pratt Institute and Columbia University, all in New York and Reed College, Portland, Ore.

Linotype's Los Angeles Manager—Joseph W. Agee has assumed the position of manager of the Los Angeles agency of Mergenthaler Linotype Co. Agee moved to the West Coast from Cleveland where he was agency manager. Associated with Linotype since 1949, he has served the company in Michigan, Minnesota and Western Wisconsin. Previous to joining Linotype he worked for numerous newspapers in Ohio.

Joins Book Manufacturers' Institute—Kenneth H. Layer has been named assistant executive director of the Book Manufacturers' Institute, according to Malcolm H. Frost, executive director.

For Photoengravers and Printers— Pre-Curved Magnesium Printing Plates with Guaranteed Gauge Accuracy ±.0005 Inches

B & P Precision Magplate can be curved to any diameter through an exclusive curving process. Pre-curved Magplate saves many hours of make-ready time by eliminating inaccuracy in plate thickness and curvature. There are no stretch factor problems with B&P pre-curved Magplate because the etching is done on pre-curved metal. Register is absolute —if your negatives are in register your plates must be in register. B&P Magplates can be chrome plated to last through millions of impressions.

If you would like to know more about B&P pre-curved Magplate, simply write to Brooks & Perkins Magplate Division.

Magplate

60-M-2

MAGPLATE DIVISION
BROOKS & PERKINS, Inc.
1968 W. FORT STREET
DETROIT 16, MICHIGAN

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AGEE

SWEET

Named Dycril Field Manager—William J. Sweet has been named field sales manager for Dycril photopolymer printing plates by the Photo Products Dept., E. I. du Pont de Nemours & Co. Sweet will be in charge of the Central District, making his headquarters in Chicago. He has been associated with Du Pont for 10 years, serving as sales manager in Cleveland for the past three years.

Heads Fasson's Northeastern Sales—William E. Donovan has been appointed district sales manager of Fasson Products, Div. of Avery Adhesive Products, Inc. According to the company, Donovan will head sales in Eastern New York and New England. He had been the company's sales representative in Massachusetts, Connecticut and Rhode Island.

Falta Named to New Goss Post—The appointment of Joseph F. Falta to the new post of administrative coordinator, Materials Handling Div., has been announced by Goss Company, Div. of Miehle-Goss-Dexter, Inc. Falta will serve as a coordinator between customers and suppliers and the Goss sales staff and suppliers. He is to develop internal working systems for his division

FALTA

FIELD

Named President of Sam'l Bingham's Son—George E. Field has been appointed president of Sam'l Bingham's Son Mfg. Co. Previously, Field was connected with B. F. Goodrich Co.

Stereotype Authority Dies — Charles M. Kirk, 59, stereotype superintendent, Detroit *News*, died after suffering a heart attack, Aug. 12. Well-known for his work with the American Newspaper Publishers Assn. in developing standards for stereotype processing, Mr Kirk had been stereo superintendent at the *News* since 1935. He was a founder and past president of the Great

What is BRIGHTYPE®?

What is Brightype? That is a question being asked by a number of people today in the graphic arts field. This page will try to answer some of the more obvious questions about Brightype. If you want additional information send for your free copy of the new Brightype folder about the remarkable possibilities of this new conversion process.

Q. What is Brightype?

A. Brightype is a new process to reproduce metal type forms and letterpress plates **directly** onto photographic film or paper.

Q. In what printing processes would I use type on Brightype film?

A. All offset lithography and gravure use material in film form. Silk screen techniques also use photographic methods to good advantage. Letterpress uses type on film in many cases when photoengraving is involved, and in its newer developments, such as Dow etch, photopolymer and other chemical processes, material on film is playing an increasingly important part. Brightype is adaptable to all of these.

Q. How does Brightype compare in quality with photographic typesetting processes?

A. The Brightype reproduction is of highest quality in sharpness, fidelity and evenness, with none of the occasional faults of conventional printed proofs, such as halations, fuzziness, uneven impression, etc.

Q. How are corrections handled?

A. Author's alterations in copy or spacing, as well as ordinary proofreader's corrections, are made in the usual manner in the metal type form **before** Brightype reproduction is made. There is no need to photograph the form until it has been finally ok'd, and accordingly corrections on film are eliminated.

Q. Can any camera be used in the Brightype process?

A. The Brightype camera has been specially designed for its process. It combines a **light source in motion** with precision engineering to accommodate either type forms or letterpress plates, and Brightype patented features cannot be duplicated on any other camera.

Q. Can I use existing photoengravings or other letterpress plates in Brightype?

A. Brightype reproduces even fine screen halftones **faithfully** by the same preparation methods as used on metal type. These can be done separately, or included in the makeup of the type form, thus furnishing a **single** piece of film combining both halftones and type without any stripping. Line engravings, electrotypes, etc., are similarly handled.

Q. Can worn type or plates be Brightyped?

A. A unique feature of the Brightype camera is its unusual faculty of reproducing rounded-off worn surfaces in restored, almost-perfect form. Mixtures of such worn type combined with brand-new type appear on the film in surprisingly even color.

Q. How large a form can be Brightyped?

A. The Brightype camera photographs up to:

Maximum image size . . . . . 30 inch circle
Maximum rectangle . . . . . 18 x 24 inches

Q. Are there other applications for the Brightype camera?

A. Very fine results have been obtained in photographing mechanical pasteups. The moving light source eliminates pasteup shadows, produces a sharp reproduction, and compensates for less-than-perfect type proofs to some degree.

Ludlow Typograph Company 2032 Clybourn Avenue, Chicago 14

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Lakes Newspaper Mechanical Conference and a former president of Detroit Local No. 9, International Stereotypers and Electrotypers Union.

President of Ohio Firms Dies—Arthur P. Rickard, president of the Canton Engraving & Electrotype Co., Canton, O., and the Cleveland Engraving Co., Cleveland, died recently. Mr. Rickard was also active in the Consolidated Graphic Arts of Cleveland and Creative Graphic Arts of Akron, O.

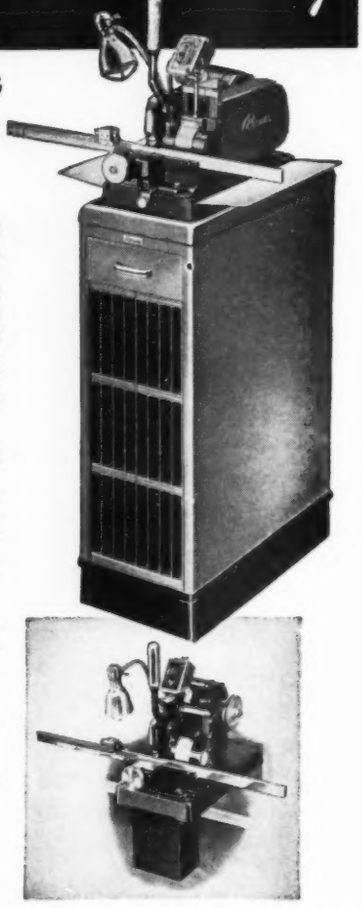
Simpson Paper Names Distributors—Three companies have been designated distributors of Seaplane printing papers by Simpson Paper Co., Div. of Simpson Lee Paper Co. Blake, Moffitt & Towne will distribute the line in six Western states; Ingram Paper Co., in Southern California; and West Coast Paper Co., in the Pacific Northwest. Included in the Seaplane line are Seaplane offset, Seaplane vellum and Seaplane cover stocks.

Robertson Appoints Comptroller—Louis L. Green has been appointed treasurer and comptroller of Robertson Photo-Mechanix, Inc.

Represents Mid-States in St. Louis—John A. Reichle has been appointed St. Louis sales representative for Mid-States Gummed Paper Div., Minnesota Mining & Mfg. Co. His territory will include Missouri, Arkansas, Kansas and parts of Illinois and Tennessee.

DO THE WORK OF HOURS *in Minutes!*

SLASH YOUR PRINTING COSTS WITH THE *Rouse* POWER MITERER



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A Rouse Power Miterer won't cost you one cent! Printers the world over say that money paid for a Rouse Power Miterer quickly comes back through tremendous savings in expensive time. After getting your money back, you'll start collecting daily dividends from permanently lower operating costs.

FROM THE SMALLEST JOB SHOP UP TO THE LARGEST PLANT, ONLY ROUSE MAKES A POWER MITERER FOR EVERY TYPE OF USE.

You may buy any Rouse Power Miterer as a bench model or with any other equipment you wish.

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COMPOSING STICKS
TYPE GAUGES
SLUG CLIPPERS
BAND SAWS

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Lanston Appoints Northeast Heads—Rocco E. Giorgio has been named general sales manager and Palmer J. McMaster, assistant

McMASTER

GIORGIO

manager, of the Northeastern district, Lanston Monotype Co. The men will work from headquarters in Philadelphia and New York, respectively. Giorgio joined Lanston in 1927 and has successively been a serviceman, salesman and district manager. McMaster formerly served the company as assistant to the general sales manager in Philadelphia.

Huber Opens Louisiana Plant—An ink manufacturing plant has been opened in Shreveport, La., by J. M. Huber Corp. The plant will produce inks for the shipping container industry as well as color inks for newspapers.

To Manage Ektalith Sales—Edward H. Cann has been appointed manager of the photo reproduction products sales division, Eastman Kodak Co. In his position, Cann will be responsible for sale of Ektalith products. He will report to Alvin W. Streitmatter, general manager of Kodak's professional goods sales.

Kaplan Heads Philadelphia Plant—The opening of Madison Press, Inc., in Philadelphia has been announced. President of the new printing plant is Ben Kaplan, former president of Liberty Printing & Litho Co., Philadelphia. Located at 3401 N. Second St., Madison Press is housed in a plant which covers 10,000 sq. ft.

Los Angeles Production Executive Dies—Joe E. Hall, 40, vice president in charge of production at the McCarty Company, died Sept. 10 of a heart attack. Recognized as an authority on fine color lithography, Mr. Hall was a past president of the Production Club of Los Angeles.

Named to Goss Administrative Post—Leslie C. Berndtson has been named engineering administrator of Goss Company, Div. of Miehle-Goss-Dexter, Inc. Berndtson has been associated with Goss for 14 years, serving as assistant engineering administrator for more than three years.

General Menager of Stephen Greene Co.—Harry J. Chambers has been named general manager, Stephen Greene Co., Business Forms Div., Allied Paper Corp. In his new position, Chambers succeeds William C. Lamprechter, vice president, Stephen Greene Co., who will continue to serve

here's how to get top quality stereotype reproduction . . .

High Fidelity Black and White, Excellent Color Register

BACK YOUR BAKED MATS with TENANON!

The addition of a single sheet of Tenanon in your baked mat "sandwich" will improve newspaper reproduction tremendously. Tenanon, unaffected by temperature or humidity changes, controls mat shrinkage—so vitally important in color register. Tenanon adds a permanent cushion to the back of the mat and keeps the printing surface flat during casting

The results? . . . newspaper ads with high fidelity, true highlights and tonal values, and excellent register.

Tenanon is so easy to handle and use, too. Ask your Tenak service representative for details, or write to:

Tenak

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Plastics for Letterpress

ALL TENAK PRODUCTS ARE FULLY GUARANTEED AND SHIPPED PREPAID THROUGHOUT THE UNITED STATES

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in a consulting capacity. Chambers has been associated with the firm for 20 years.

Mergenthaler Announces Appointments—Robert Yeomans has been named manager of the Boston agency of Mergenthaler Linotype Co. Formerly assigned to the Washington, D. C., area, Yeomans succeeds Jack Huie, who has been named Linofilm sales manager with headquarters in Brooklyn. Appointed to represent Mergenthaler in the District of Columbia, Eastern Maryland and Delaware is Robert Penney. Succeeding Penney in the territory of Connecticut and Western Massachusetts is Ralph P. Smith, who formerly was the suburban New York representative. William O'Connell, who has 20 years of experience with Linotype has been named production engineer for the suburban New York area.

Hoe Elects Two Officials—R. Palmer Hollister has been elected treasurer and Arthur Gordon, controller, of R. Hoe & Co., Inc. Both men joined Hoe in 1957 as assistant controllers.

Form Bindery in Washington, D. C.—The formation of H&H Bindery, Inc., has been announced by Herman Haven, president, and Sam Hall, vice president. Located at 1331-33—4th St., N.E., the firm offers a finishing service for the printing and lithographing industries.

Mosstype Appoints Three—The following appointments have been announced by Mosstype Corporation: Charles J. Fillare, as manager of the customer service department; John W. Locke, as manager of the design roller department; and William I. Saul, as member of the field service staff. Fillare and Locke have been associated with Mosstype for 10 years. Most recently Fillare served the company as sales promotion manager and Locke, as supervisor in the design roller department. Saul was previously associated with Beck Engraving Co., Philadelphia.

FILLARE LOCKE SAUL

Faustel Moves Wisconsin Plant—Operations of Faustel, Incorporated, have been moved into a new plant at 12801 W. Silver Spring Dr., Butler, Wis. Three times the size of the former facilities, the new Faustel plant includes research and testing departments.

Heads Branch of GPI—Anthony C. Fucillo has been appointed manager of the Norwood, Mass., branch of General Printing Ink Div., Sun Chemical Corp. He joined the company in 1937; in 1958, he was appointed general sales manager of the Norwood branch.

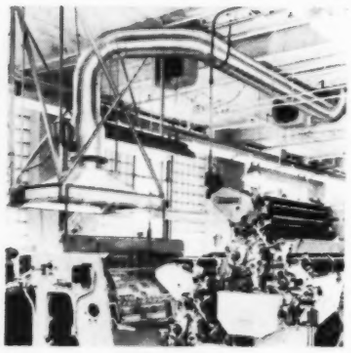
Represents Paper Firm in New York—Lloyd F. Scott, Jr., has been promoted to the position of New York district sales representative by Industrial Paper Sales Div., Crown Zellerbach Corp. Formerly, Scott was a member of the company's San Francisco sales staff.

Superintendent of Editors Press—George D. Williams has been appointed plant superintendent of Editors Press, Inc., Hyattsville, Md. Previously, Williams has been associated with American Greetings Corp., Cleveland, and Stecher-Traung Lithograph Corp., Rochester, N. Y.

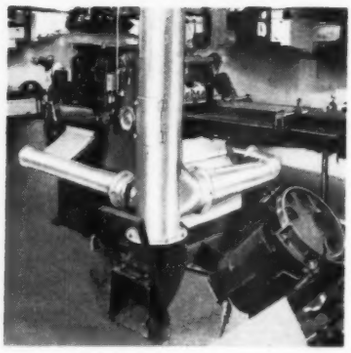
Goss Names General Works Manager—Sal J. Marinello has been named general works manager of the Goss Company, Div. of Miehle-Goss-Dexter, Inc. Associated with Goss for 27 years, Marinello

CLEAN SHOPS MAKE MORE PROFIT

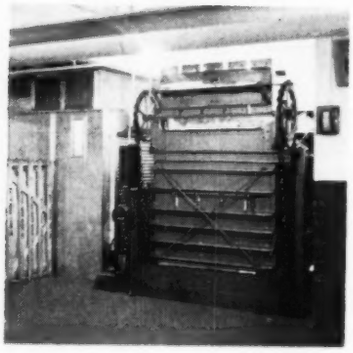
. . . and OBP pneumatic systems keep your shop clean!



• *No more clouds of offset spray settling over finished jobs, floors, equipment, window sills.*



• *Combination automatic pickup of trim from 3-knife cutter, plus floor pickup for fast, easy cleaning of entire area.*



• *Before baling, all paper waste is collected in accumulator bin.*

Clean shops have good morale, produce higher quality jobs, eliminate excessive cleaning costs, enjoy reduced fire hazard . . . Call an OBP engineer today!

We do the complete job . . . ENGINEERING • MANUFACTURING • INSTALLING

OHIO BLOW PIPE CO.

1731 DOAN AVENUE — CLEVELAND 12, OHIO

For More Information Circle 136 on Reader Service Card

Save with Powerlith Developer Concentrate

Now, Chemco introduces a pre-mixed, liquid, two-part formaldehyde developer concentrate ready for immediate use by simply adding it to water. Packaged in unbreakable 5-gallon Cubitainers. All you do is place container on shelf and draw off A and B concentrate as needed. No more dissolving powders with possible errors in formulation. No double handling. As developer is used, container collapses eliminating aerial oxidation and insuring unlimited shelf life.

Add undiluted Powerlith Concentrate to replenish tired developer, thus making one bath last an entire shift. One set of A and B 5-gallon containers makes 20 gallons of developer. Order a supply today, plus Chemco Power-Fix to complete your darkroom changeover.

chemco

Chemco Photoproducts Co., Inc.

Main Office and Plant — Glen Cove, New York

Atlanta, Boston, Chicago, Cleveland, Dallas, New Orleans, New York
Exclusive West Coast Agents: California Ink Company, Inc.
Exclusive Agents in Canada: W. E. Booth Company, Ltd.

For More Information Circle 40 on Reader Service Card

was previously plant manager of the Chicago facilities. In his new position, he assumes responsibility for manufacturing operations in the Chicago and Rockford, Ill., plants.

Service for Business Forms Field—A service organization for the business forms field has been organized by F. J. Ring, former executive secretary of National Business Forms Associates. Known as Business Forms International, the new organization will operate from Fort Lauderdale, Fla., and will serve dealers and manufacturers of business forms in the United States, Canada, the Caribbean, Mexico, Australia and parts of South America. For information, contact F. J. Ring, Box 671, Fort Lauderdale, Fla.

Industrial Engineer Joins PIA—Edward W. Hill, Jr., has been named to the staff of the Printing Industry of America, Inc, as an industrial engineer. From his headquarters in Washington, D. C., Hill will direct the development of PAR standards for the printing industry. Previously, Hill has been associated with R. R. Donnelley and Sons, Chicago; E. I. du Pont de Nemours & Co. and Allis-Chalmers Mfg. Co.

Davidson Names Ad Manager—William H. Walker has been appointed advertising manager of Davidson Corporation, Sub. of Mergenthaler Linotype Co. Previously, he was associated with A.T.&T. and with Batton, Barton, Durstine & Osborn ad agency.

HILL

ECHOLS

Goss Names South American Representative—Chandler Echols has been named South American representative of Goss Printing Press International, S.A., Sub. of Miehle-Goss-Dexter, Inc. Formerly, Echols was president of Graphic Arts Supply Co., Cuba.

Ohio-Pennsylvania Representative — William E. Gundlack has been named sales representative for Emerson Manufacturing Co., Div. of John W. Bolton & Sons, Inc. He will cover a territory encompassing Ohio and Western Pennsylvania.

Johnson Named Tenak Vice President—James E. Johnson has been appointed vice president of Tenak Products Co. He has been associated with the company since 1954, serving as assistant to the president for the past year.

JOHNSON

SMITH

To Represent Herbert Products—Oliver L. Smith has joined Herbert Products, Inc., as sales representative. His territory encompasses Southern New Jersey, Pennsylvania, Delaware and Maryland.

Named Sales Promotion Manager—The appointment of William F. Green as sales promotion manager has been announced by Roberts Numbering Machine Div., Heller Roberts Mfg. Corp.

Corbin Named to Crescent Post—George E. Corbin has been appointed to the newly-created position of Southeastern sales manager of Crescent Ink & Color Co. of Georgia. He will make his headquarters at the Atlanta branch.

M-G-D Consolidates San Francisco Divisions—The division offices of Miehle-Goss-Dexter, Inc., San Francisco, have been moved into one building. Located in the new facilities at 200 Folsom St., are the showrooms and offices of the Miehle, Goss, Dexter, Lawson and Mercury divisions.

Two important factors for producing top quality printing plates for Offset... Letterpress... Gravure

***apco* MASKING PAPER**

Especially made for the purpose, this high strength base stock is Mandarin color coated on two sides with a special APCO coating formula of exacting properties that provides complete protection to most films during long exposure to strong lights, yet is sufficiently transparent for easy marking. Ideal to work with, APCO Masking Paper takes pen or pencil — frisket cuts without feathering — and does not tear or surface peel when masking tape is removed. Once used, you will readily appreciate the differences between this "special" masking paper and ordinary orange or yellow enameled papers. Write for samples and name of APCO merchant best located to serve you.

***apco* REPRO-PROOFING PAPER**

Not just another coated paper, but one especially produced for sharp, clear reproduction proofing only. APCO's features are many — It's bright white, dull coated surface is free from dirt — is level smooth, free from curl, and remains flat during proofing to accept the exacting ink coverage required to reproduce strong blacks and hairlines from type matter and/or halftone dots with true fidelity. APCO dries fast without smudging. It also features a special barrier coated backing which prevents camera "ghost images" from rubber cement paste-ups — and also retards solvent strike-thru when repositioning proofs. Test-try APCO today!

Write for new "tell-all" sample kit — on your business letterhead, please.

apco ... *Product research developments for the Graphic Arts Industries*

THE APPLETON COATED PAPER CO.

APPLETON • WISCONSIN

For More Information Circle 2 on Reader Service Card

Bindery Automation is profitable with Speed-Klect collators

When you automate your bindery with a Speed-Klect Collator you join over 550 Speed-Klect users who have proven that a Speed-Klect in their bindery pays off in additional profits. These successful printers and trade binders know that slow, old-fashioned hand collating or semi-automatic methods in the bindery often cost them jobs in competitive bidding. Speed-Klect Collators automatically gather and glue one-time carbon forms and collate signatures, pamphlets, manuals, and single sheets.

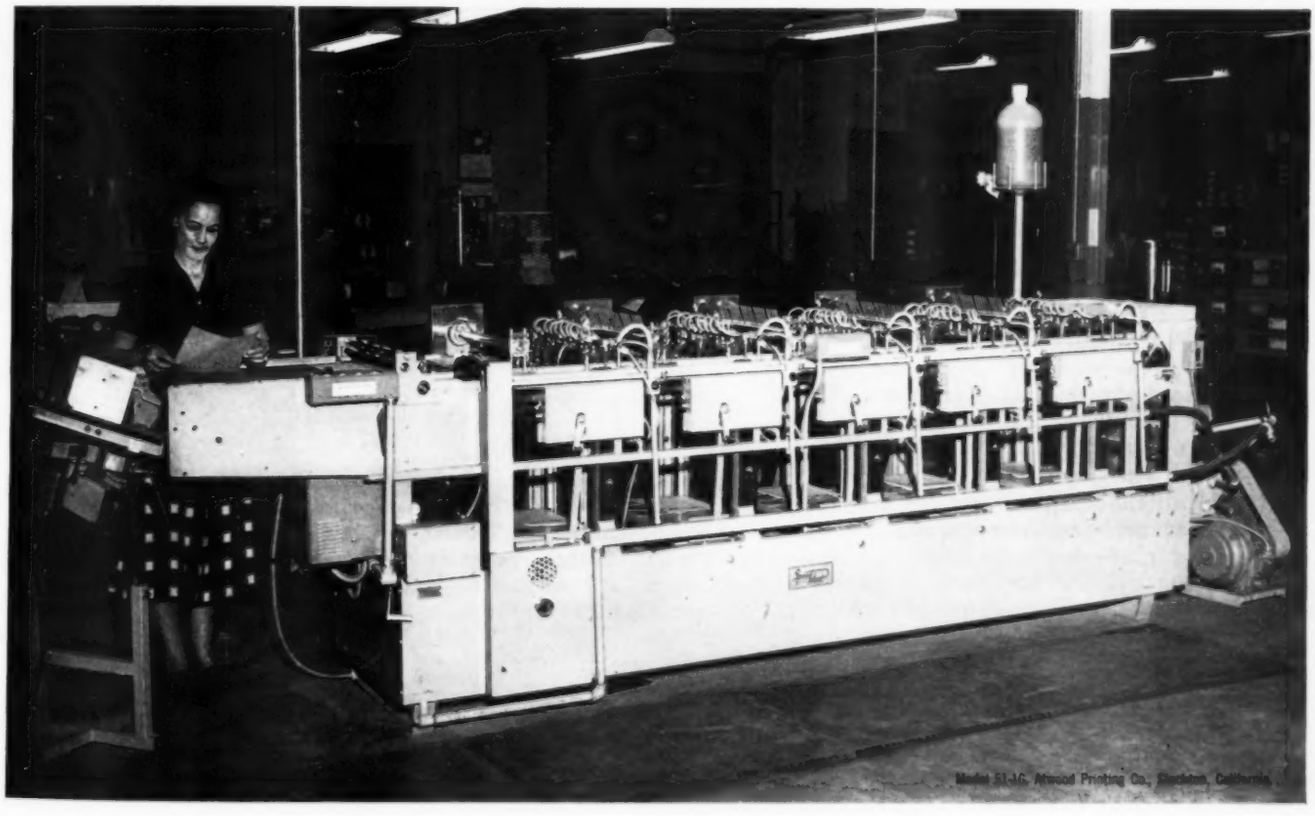
* Patented and Pat. Pending

Speed-Klect accessories include; Slitter-Trimmer . . . Interleaving Delivery . . . Criss-Cross . . . Stitcher . . . Pamphlet Folder . . . and Creeper Delivery. Sizes 3 to 9 stations. A request on your letterhead will bring specifications and complete information.

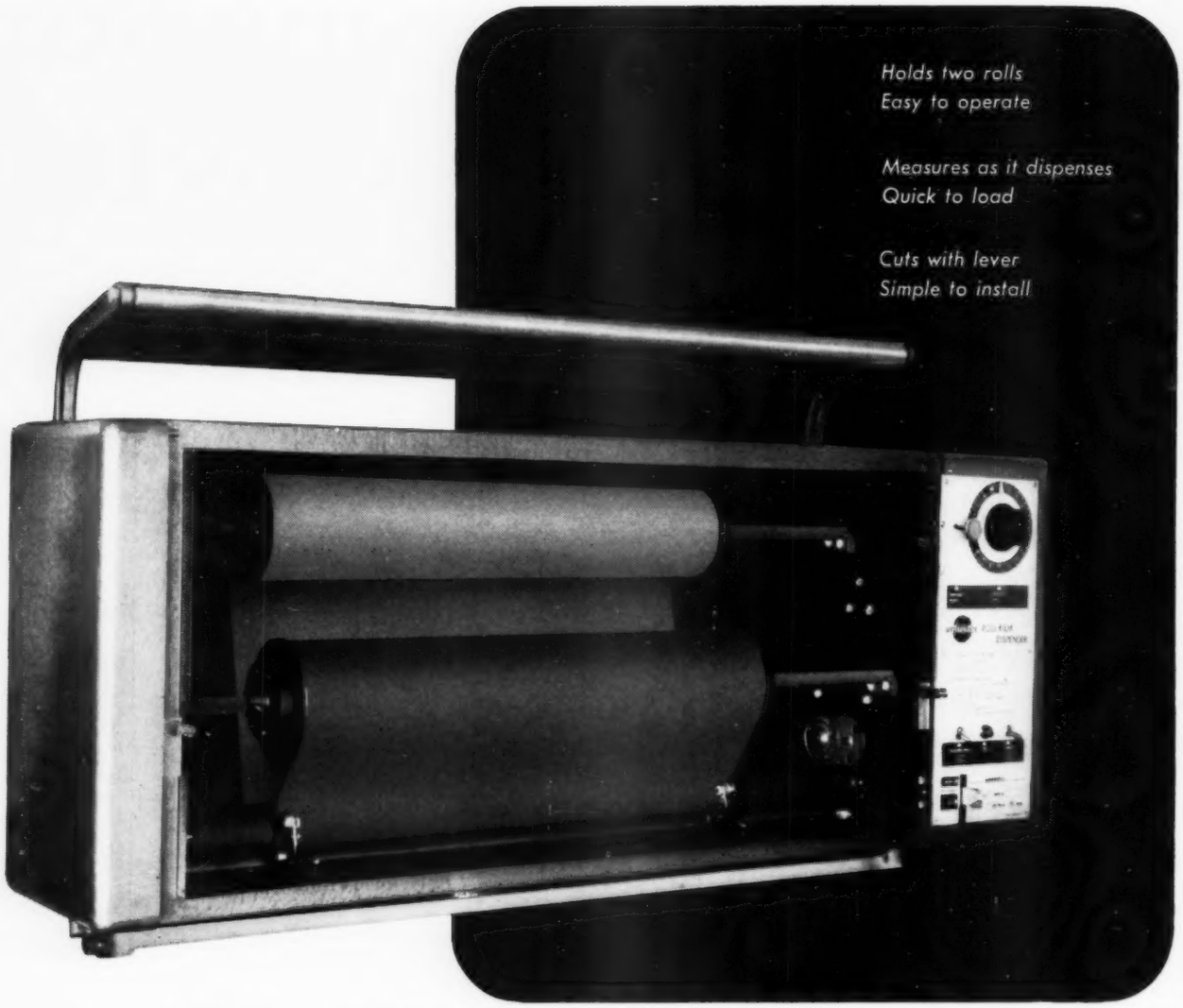
Didde-Glaser, INC
Emporia, Kansas

DIDDE-GLASER, INC.

Designers, Manufacturers, and Distributors of Graphic Arts Equipment. General Office and Factory, Dept. P8, 50 Hi-Way and West 12th Ave., Emporia, Kansas. Sales and Service Offices in New York, Chicago, Los Angeles.



For More Information Circle 53 on Reader Service Card



save 10-25% on film costs

The new Unitronics Automatic Roll-Film Dispenser

You can save *at least* 10% and up to as much as 25% with this new dispenser. It uses economical roll film instead of higher priced sheet film. You can do with a smaller film inventory, have less film spoilage due to accidental exposure and improper cutting.

Practically all the standard graphic arts film sizes you need can be cut from the two rolls this dispenser contains—width to 30 in., length to 200 ft. As the machine dispenses, it measures any length of film to 36 in. in a single feed.

All stable base and acetate base films are cut cleanly and evenly by a heavy duty self-sharpening shear.

Pays for itself quickly!

This convenient dispenser can pay for itself in less than a year for the average plant. See your Lanston-Unitronics Dealer or send for illustrated folder today. Unitronics, Inc., Subsidiary of Lanston Industries, Inc., Box 4768, Philadelphia 34, Pa.

This advertisement was composed on the Monotype in 20th Century Medium, Century Schoolbook and Century Bold.

Lanston unitronics, inc.

Proofing Film • Film Dispenser • Light Integrators • Optical Depth Gauges • Contact Camera • Step and Repeat Machines • Overhead Cameras • Plate Coaters • Developing and Darkroom Sinks • Vacuum Printing Frames • Layout and Stripping and Dot Etching Tables

For More Information Circle 102 on Reader Service Card

For More Information Circle 90 on Reader Service Card→

Printed offset on Atlantic Opaque, Vellum Finish • Basis 80

They were for your best girl. You found them growing in a vacant lot. And when you saw their bright colors, you thought: Oh, what a wonderful present!

Never in the world was there such a bouquet. Didn't she say so herself? And smother you with kisses till you nearly burst with love and pride?

Your image of love has grown more complex. But your sense of pride is still young and enthusiastic. It's what made you turn out that rush printing job in record-breaking time. A darn *good* job, too.

And if our good papers helped make it possible, who could blame us for feeling proud with you?

EASTERN Atlantic Fine Papers
EXCELLENCE IN FINE PAPERS

ATLANTIC FINE PAPERS

EASTERN FINE PAPER AND PULP DIVISION · STANDARD PACKAGING CORPORATION · BANGOR, ME.

Keeping one eye on quality– and the other on the budget?

Then Eastern's *Manifest* line is *your* paper. Bond, Duplicator, Mimeo, or Ledger—take your choice. *Economy priced,* yet you get high bulk, even caliper and correct moisture content in all four. This means faster, trouble-free production. Brighter, more sparkling copies, too.

Ask your Eastern Franchised Merchant for samples of Manifest Papers in white and colors. Or write us direct.

EASTERN FINE PAPERS

EASTERN FINE PAPER AND PULP DIVISION • STANDARD PACKAGING CORPORATION • BANGOR, ME.

Production facts: This insert lithographed on new, brilliant white Atlantic Opaque, Vellum finish, basis 80, on a 52 x 77 4-color press, 30 up at 4,000 IPH. Sheet size 49½ x 76¾. Color sequence was yellow, red, blue, black. Press plates were deep etch aluminum from 175-line screen positives.

EASTERN FRANCHISED MERCHANTS

ALABAMA
BIRMINGHAM
Sloan Paper Company

CONNECTICUT
BRIDGEPORT
Lott-Merlin, Inc.
EAST HARTFORD
John Carter & Co., Inc.
NEW HAVEN
Whitney-Anderson Paper Co., Inc.
STAMFORD
Lott-Merlin, Inc.

FLORIDA
MIAMI
Coronet Paper Products Co.
Southeastern Paper & Supply Co.

GEORGIA
ATLANTA
Sloan Paper Company

ILLINOIS
CHICAGO
Dwight Brothers Paper Co.
Reliable Paper Company
Empire Paper Company

INDIANA
FORT WAYNE
The Millcraft Paper Co.
INDIANAPOLIS
Indiana Paper Co., Inc.
MacCollum Paper Co., Inc.

KENTUCKY
LOUISVILLE
The Rowland Paper Co., Inc.

LOUISIANA
NEW ORLEANS
Alco Paper Co., Inc.

MAINE
PORTLAND
C. H. Robinson Co.

MARYLAND
BALTIMORE
Garrett-Buchanan Co.
Leonard Paper Company

MASSACHUSETTS
BOSTON
John Carter & Co., Inc.
The Century Paper Co., Inc.
Von Olker-Snell Paper Co.
SPRINGFIELD
Whitney-Anderson Paper Co., Inc.
WORCESTER
Butler-Dearden Paper Service, Inc.

MICHIGAN
DETROIT
Chope-Stevens Paper Co.

MISSOURI
KANSAS CITY
Wertgame Paper Co.
ST. LOUIS
Shaughnessy-Kniep-Hawe Paper Co.
SPRINGFIELD
Wertgame Paper Co.

NEW HAMPSHIRE
CONCORD
John Carter & Co., Inc.
MANCHESTER
C. H. Robinson Co.

NEW JERSEY
NEWARK
Central Paper Co.
TRENTON
Central Paper Co.

NEW YORK
ALBANY
W. H. Smith Paper Corp.
BUFFALO
Franklin-Cowan Paper Co.
JAMESTOWN
The Millcraft Paper Co.
NEW YORK
Berman Paper Corp.
Duplicating Papers, Inc.
Inter-City Paper Co.
Majestic Paper Corp.
Geo. W. Millar & Co., Inc.
Milton Paper Co., Inc.
Pohlman Paper Co., Inc.
ROCHESTER
Genessee Valley Paper Co., Inc.

NORTH CAROLINA
HICKORY
Snyder Paper Corp.
HIGH POINT
Snyder Paper Corp.
CHARLOTTE
Snyder Paper Corp.

OHIO
AKRON
The Millcraft Paper Co.
CINCINNATI
The Johnston Paper Co.
Merchants Paper Co.
CLEVELAND
The Millcraft Paper Co.
COLUMBUS
Sterling Paper Co.
MANSFIELD
Sterling Paper Co.
TOLEDO
The Millcraft Paper Co.

PENNSYLVANIA
ALLENTOWN
Kemmerer Paper Company
LANCASTER
Garrett-Buchanan Co.
PHILADELPHIA
Garrett-Buchanan Co.
Molten Paper Co.
PITTSBURGH
Darragh Paper Co.
READING
Garrett-Buchanan Co.

RHODE ISLAND
PROVIDENCE
Narragansett Paper Co.
John Carter & Co., Inc.

TENNESSEE
CHATTANOOGA
Sloan Paper Company

TEXAS
DALLAS
Olmsted-Kirk Company
FORT WORTH
Olmsted-Kirk Company
HOUSTON
L. S. Bosworth Co., Inc.
Olmsted-Kirk Company
WACO
Olmsted-Kirk Company

VIRGINIA
RICHMOND
Virginia Paper Co.

WASHINGTON, D. C.
Virginia Paper Co.

WISCONSIN
MILWAUKEE
Reliable Paper Co.

MONTREAL, P. Q., CANADA
Lauzier Paper Limited

TORONTO, ONT., CANADA
General Paper Company

SHERIDAN PRODUCTS for Newspapers, Printers and Publishers

FOR NEWSPAPER PRINTERS
- Stuffing Machines
- Inserters
- Sisal Tyers
- Automated Mailroom Equipment

SHERIDAN-MAGNACRAFT MACHINES
- Tipping Machines
- Inserting and Mailing Machines
- Combination Folding and Flat Magazine Wrappers
- Mailing Machines
- Labelling Heads
- Newspaper Feeders

FOR THE EDITION BOOKBINDER
- Gatherers
- Side Stitchers
- Smashers
- Casemakers
- Rounder & Backers Backliners
- Trimmers
- Perfect Binders
- Stamping & Embossing Presses
- Counter-Stackers
- Book Sewing Machines
- Conveyors

FOR THE PUBLICATION BOOKBINDER
- Gatherers
- Coverers
- Side Stitchers
- Inserters
- Three-knife Trimmers
- Five-knife Trimmers
- Saddle Stitchers
- Perfect Binders
- Tabloid Machines
- Wrapping Machines
- Counter Stackers
- Conveyors

SPECIAL MACHINERY
- Designed and built to order

SINCE 1835

T.W. & C.B. SHERIDAN CO.

220 CHURCH STREET — NEW YORK 13, N. Y.

PLANTS:
Champlain, N. Y. Easton, Penn.

BRANCHES:
Chicago, Ill. Boston, Mass.
Torrance, Calif. London, England

For More Information Circle 216 on Reader Service Card

6,500,000 pounds

6,500,000 pounds...This is the capacity of a typical Huber tank farm for news ink oils. Such inventory is another reason you will find Huber a reliable supplier for your news inks. You can learn how we make these high-quality inks by writing for the issue of Huber News which describes the process. Write J. M. Huber Corp., 1478 Chestnut Ave., Hillside, N. J.

HUBER

J. M. HUBER
CORPORATION
INK DIVISION

For More Information Circle 89 on Reader Service Card

New York City
Philadelphia
Baltimore
Rochester
Jersey City
Cambridge
Atlanta
Cincinnati
Cleveland
Dallas
Des Moines
Detroit
Houston

More Printers use Bingham Rollers than any other kind

Indianapolis
Kalamazoo
Kansas City
Milwaukee
Minneapolis
Nashville
Pittsburgh
St. Louis
Searcy, Ark.

Home office, **CHICAGO**

"BINGHAM PREFERRED" FEATURES

Designed to handle heavier-pigmented inks. Five times greater heat, oil, abrasion resistance. Flame-resistance. Finer texture. Easier grinding. Finer No-Pak mat printing.

SAM'L BINGHAM'S SON MFG. CO.
MANUFACTURERS OF
ROLLERS

For More Information Circle 21 on Reader Service Card

No slips, slides or skids with A. W. ALGRIP flooring. It's the world's *only* rolled steel abrasive floor plate, and an important aid to plant safety.

A. W. ALGRIP rolled steel floor plate is produced by Alan Wood Steel Company by a patented process in which an abrasive—just like the kind that is used in grinding wheels—is embedded to a specific depth. It becomes an integral part of a tough steel plate.

A. W. ALGRIP can be used as independent flooring . . . or as flooring overlay. Put your plant on a safe footing, with A. W. ALGRIP . . . Approved for Safety by Underwriters' Laboratories. Write for Bulletin AL-55.

ALAN WOOD STEEL COMPANY
CONSHOHOCKEN, PA.

DISTRICT OFFICES: Philadelphia • New York • Los Angeles • Boston • REPRESENTATIVES: Atlanta • Cincinnati • Cleveland • Detroit • Houston • Pittsburgh • Richmond • St. Paul • San Francisco • Seattle Montreal, Toronto and Vancouver, Canada—A. C. Leslie & Co., Ltd.

For More Information Circle 4 on Reader Service Card

MIEHLE WEB OFFSET

MIEHLE WEB OFFSET

MIEHLE WEB OFFSET

MIEHLE WEB OFFSET

MIEHLE WEB OFFSET

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MIEHLE WEB OFFSET

MIEHLE WEB OFFSET IS HERE...NOW! Combining Miehle's unmatched manufacturing experience with the proven design of George Hantscho, outstanding web offset pioneer, the new Miehle Web Offsets offer high speed production of quality printing at lowest cost. • Miehle Web Offset Presses are unit constructed in a full range of sizes. Blanket-to-blanket perfectors, they can print one to four colors on both sides of the web at the same time...and deliver up to *25,000 folded signatures per hour!* Or the printed web may be sheeted and stacked, or rewound onto another roll for further processing. • Only MGD—offering all processes, both sheet-fed and web-fed—can be completely impartial. So, if you plan to investigate web offset...be "web-wise" and check with Miehle.

THE MIEHLE COMPANY
Division of Miehle-Goss-Dexter, Inc.
Chicago 8, Illinois

MIG D

For More Information Circle 117 on Reader Service Card

MEETINGS for the PRINTING INDUSTRY

American Photoengravers Assn.—1960 Conv., Hotel Statler, Buffalo, N. Y., Oct. 9-12. Exec. Secy. Frank J. Schreiber, 166 W. Van Buren St., Chicago 4.

ANPA-RI Mechanical Conf.—1961 Conf., Palmer House, Chicago, June 5-7. Mgr. Richard L. Lewis, ANPA-RI Mechanical and Service Div., 750 Third Ave., New York 17.

Book Manufacturers' Institute — 1960 Conf., Boca Raton Hotel, Boca Raton, Fla., Oct. 19-22. Secy. Miss A. G. Watson, 25 W. 43rd St., New York 36.

Fifth District Craftsmen's Conf.—Secy.-Treas. Avery Schlaghek, 4350 Lyman Rd., Toledo, O.

Flexographic Technical Assn.—1961 Meeting, Hotel Roosevelt, New York, Feb. 9-10. Exec. Secy. Julian Ross, 220 W. 42nd St., New York 36.

Graphic Arts Assn. Executives—1960 Fall Meeting, Shoreham Hotel, Washington, D. C., Oct. 21-22, Secy-Treas. Doris Hall, 321 Tower Bldg., Washington 5, D. C.

Gravure Technical Assn.—1961 Conv., Hotel Drake, Chicago, Mar. 8-10. Exec. Secy. Edward S. St. John, Room 4800, 30 Rockefeller Plaza, New York 20.

Great Lakes Mechanical Conf.—1961 Conf., Hotel Gibson, Cincinnati, Jan. 22-24. Secy. John E. Innis, R. R. No. 1, Box 546, Indianapolis 27, Ind.

Illinois Newspaper Mechanical Conf.—1960 Conf., St. Nicholas Hotel, Springfield, Ill., Oct. 29-30. Secy.-Treas. Arthur Kramer, Joliet (Ill.) *Herald-News.*

Intl. Assn. of Electrotypers & Stereotypers, Inc.—1960 Conv., Continental-Hilton Hotel, Mexico City, Mexico, Oct. 23-26. Exec. Secy. Floyd C. Larson, 758 Leader Bldg., Cleveland 14.

Intl. Assn. of Printing House Craftsmen—1961 Conv., Palmer House, Chicago, Aug. 6-9. Exec. Secy. Pearl E. Oldt, 411 Oak St., Cincinnati 19.

Intl. Graphic Arts Education Assn.—1961 Conf., Ferris Institute, Big Rapids, Mich., Aug. 13-18. Exec. Secy. Samuel M. Burt, 5728 Connecticut Ave., N.W., Washington 15, D. C.

Intl. Printers Supply Salesmen's Guild—1961 Meeting, Palmer House, Chicago, Aug., 6-9. Secy. Harry Deck, 75 E. Wacker Dr., Chicago 1.

Intl. Typographic Composition Assn.—1960 Conv., Hotel Statler Hilton, Dallas, Oct. 19-22. Exec. Secy. McKinley M. Luther, Washington Bldg., 15th St. and New York Ave., N.W., Washington 5, D. C.

Iowa Newspaper Mechanical Conf.—Secy.-Treas. Paul F. Kamler, Mechanical Supt., Clinton (Ia.) *Herald.*

Kansas-Missouri Newspaper Mechanical Conf.—Kansas Gen. Mgr., Larry Miller, Kansas Press Assn., 701 Jackson St., Topeka, Kans. Missouri Secy.-Treas. William A. Bray, Missouri Press Assn., 115 Walter Williams Hall, Columbia, Mo.

Lithographers and Printers National Assn.—1961 Conv., Arizona Biltmore, Phoenix, Ariz., Apr. 30-May 5. Dir. Oscar Whitehouse, 1025 Connecticut Ave. N.W., Washington 6, D. C.

Mid-Atlantic Newspaper Mechanical Conf.—1961 Conf., Penn-Sheraton Hotel, Pittsburgh, Mar. 22-25. Gen. Mgr. G. Richard Dew, 2717 N. Front St., Harrisburg, Pa.

National Assn. of Litho Clubs, Inc.—1961 Conv., Statler Hotel, Dayton, O., May 4-6. Exec. Secy. Edward M. Harwood, 430 S. Clark St., Chicago 5.

National Assn. of Photo-Lithographers—1960 Conv., Conrad Hilton Hotel, Chicago, Oct. 5-8. Exec. Dir. Walter E. Soderstrom, 317 W. 45th St., New York 36, New York.

National Paper Trade Assn.—1961 Confs., Waldorf Astoria, New York, Mar. 26-29; Conrad Hilton Hotel, Chicago, Oct. 31-Nov. 3. Exec. Secy. O. Glenn Leach, 220 E. 42nd St St., New York 17.

National Printing Equipment Assn., Inc.—1960 Meeting, Sheridan-Park Hotel, Washington, D. C., Oct. 25-26. Exec. Secy.

(Continued on Page 28)

WITH ONLY 3 STEPS
(LOAD • FLIP • EXPOSE)

nu-arc's *flip-top* PLATE MAKERS

Have taken a revolutionary step forward in the Graphic Arts Industry.

NEVER BEFORE SUCH PERFECT PLATES WITH SO LITTLE EFFORT! ANYONE CAN OPERATE IT!

Owing to its convenience, efficiency, and ease of operation, the *nu-arc Flip-Top Plate Maker* has been so well received by the Graphic Arts Industry that we've increased production many times. The Flip-Top is now available in any of seven sizes (from 13″ x 18″ to 50″ x 62″). This range will meet the present and future needs of any printer in the country—from the small job shop to large, multi-operation plants. See your dealer, or write direct to nu-arc. **Send for Bulletin A500PP.**

Simply slip plate and film into vacuum frame, flip frame over, press button—and plate is automatically perfectly exposed. No glare, no running around; operator stays comfortably in one place.

nuArc® company, inc.

General Office and Factory : **4110 W. Grand Ave. • Chicago 51, Ill.**

SALES AND SERVICE: NEW YORK • LOS ANGELES

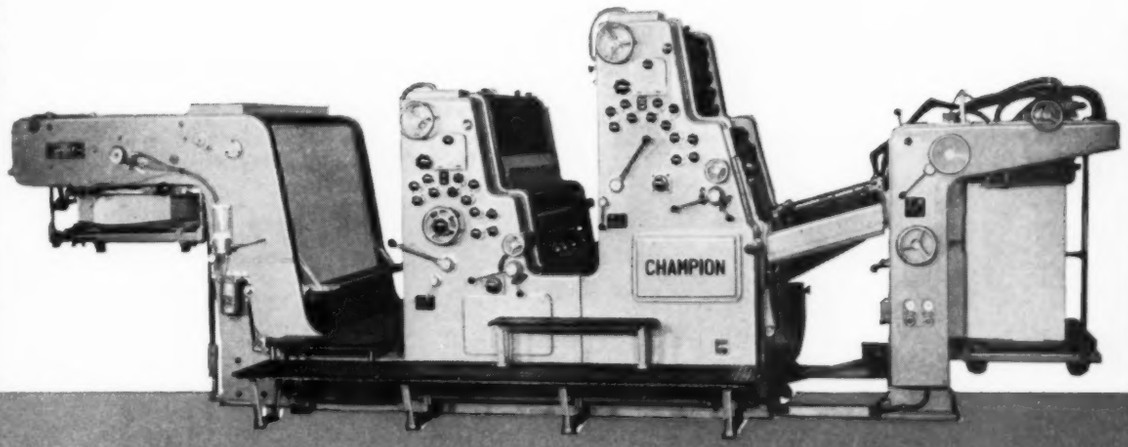
SEE nuARC AT THE P.I.A. CONVENTION—BOOTHS 14, 15

For More Information Circle 138 on Reader Service Card

So easy to operate, work's almost a pleasure

CHAMPION!

- controls are outside machine
- lubrication's continuous
- exceptionally quiet—even at 7200 sheets/hr.!



Turning out fine offset work is tough enough without having to battle a balky press, too. That's why you should check the Champion. The more than 100 now in use have proved it's the two-color press built with you in mind . . . the press that lets you concentrate on the job at hand. Consider all you get:

EASY-TO-GET-AT CONTROLS . . . all located conveniently on the side of the Champion. You make all settings and adjustments quickly, simply, without ever having to work "inside." And you can control one or both units from this single station.

PRECISE REGISTRATION . . . you can reposition the "B" unit vertically or horizontally while the machine is running. Massive steel frame and precision-ground parts also help assure registration second to none.

SPECIALLY-DESIGNED TRANSFER SYSTEM . . . delivers first-quality impressions on long and short runs, thick or thin stocks.

CONTINUOUS LUBRICATION of both feed and machinery drive systems by means of a special recirculating oil system. Keeps downtime, maintenance costs at a minimum. This lubrication, plus precision gearing, makes for an exceptionally quiet-running press.

PRECISE ELECTRONIC FEED CONTROL . . . for example, only the Champion offers you an electronic eye that prevents feeding if sheets are late, early or crooked, and spotlights the trouble. Corrections? Fast and easy.

QUALITY PRINTING AT TOP SPEED . . . up to 7200 sheets/hr., on sheets as large as 26¾" x 38½" . . . with precise controls to insure proper inking at any speed on any stock.

MONEY-SAVING VERSATILITY . . . the Champion enables you to handle stocks of varying thicknesses – even board up to 30-point.

OTHER KEY FEATURES . . . stoppable at feed, "A" unit, "B" unit or delivery system. Oversize, 26" cylinder. Streamlined construction.

These are only a few of the Champion features that can make your job easier. For full details on this fine press, and on the prompt service HCM Corporation offers, write today.

CHAMPION by color metal

A world leader in the development of offset printing presses
Zurich, Switzerland

Distributed in the U.S. exclusively by:

HCM CORPORATION
80 Varick Street
New York 13, N. Y.

General Sales Agent: Consolidated International Equipment & Supply Co., Chicago, Ill.

Authorized Dealers: *East Coast:* Ernest Payne Corporation, New York / *Philadelphia:* Foster Type, Philadelphia, Pa. / *Washington:* George R. Keller, Inc., Washington, D.C. / *West Coast:* Graphic Arts Equipment & Supply Company, Los Angeles, San Francisco, Seattle, and Portland.

For More Information Circle 85 on Reader Service Card

CIGARETTES
LIFE
LIFE
cue
cue
Match
FORBES
HOLIDAY
GARO
The New York Times
Miami Battens Down
France Dimanche
Miami Battens Down
As Donna Nears Keys

A color award winner picks up his prize

Tho' he doesn't know it, this man (a typical reader) is the winner of Editor and Publisher's Color Awards... all of them.

Of course he's never heard of them and probably never will, but still, he—the reader—stands to gain the most from these awards that symbolize the tremendous efforts being made to produce even better newspapers.

To the advertisers, agency men, publishers, and press-room craftsmen who have been awarded these honors, we would like to add our congratulations. We like to think that we played some small part. There are nine color awards this year... five are to newspapers which have Hoe equipment.*

Again, hats off to the companies and individuals who have received this valued award and thank you from the 58,000,000 award winners—the readers—who don't know they've won.

**Newspapers over 250,000 circulation*
3 colors and black—The Philadelphia Bulletin
1 color and black—The Philadelphia Bulletin
Newspapers 100,000-250,000 circulation
3 colors and black—The Newark Star-Ledger
Newspapers under 100,000 circulation
3 colors and black—LaCross Tribune
1 color and black—Rock Island Argus

R. HOE & CO., INC.
910 EAST 138TH STREET, NEW YORK 54, NEW YORK
SALES OFFICES: NEW YORK, BOSTON,
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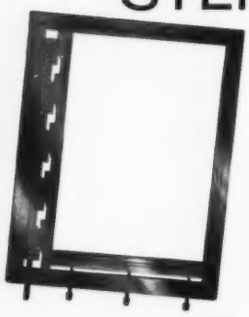
AMSCO

STEEL and ALUMINUM STEREOTYPE CHASES



The Best Known CHASES
In The Graphic Arts Industry.
The Best You Can Buy!

AMSCO Stereotype Chases (Steel and Aluminum) have been the **first Choice** in stereotype departments where **rigidity** and consistent accuracy means economy of maintenance.

CONSIDER THESE FEATURES

- Every AMSCO Chase is square and true.
- Steel Chases electrically welded for strength.
- Aluminum Chases designed to provide light weight when necessary.
- Hardened steel inserts in both steel and aluminum chases reduce wear at contact points.
- ALL AMSCO Stereotype Chases patterned from Template or Blue Print.

Catalog available — write today.

AMERICAN STEEL CHASE COMPANY
31-31 Forty-Eighth Ave., Long Island City 1, N. Y.

Over 300 leading dealers, coast-to-coast, handle AMSCO products.

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Bahnson
WATER or STEAM
UNIT
HUMIDIFIERS

cut your static and register problems, and dimensional changes in paper with

LOW-COST HUMIDITY CONTROL

TYPE BA

- Guaranteed, self-contained water or steam units have low first cost, low operating cost.
- Automatic controls.
- Easy to install; need only water or steam supply, drain, electrical connection.

GET YOUR FREE BOOKLET, CATALOG

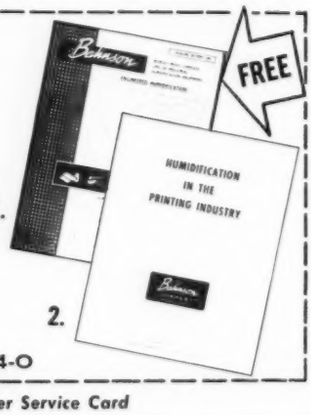
1. Catalog details, illustrates complete line of 14 units to suit your need, any size area.
2. Learn how you benefit with money-saving answers to humidity problems in printing.

Simply clip coupon to letterhead and mail. No obligation.

NAME_____

THE BAHNSON COMPANY
WINSTON-SALEM. N. C.

PR-4-O



For More Information Circle 215 on Reader Service Card

Printing Industry Meetings

(Continued from Page 24)

Harry L. Gage, 140 Nassau St., New York 38.

National Safety Council Printing and Publishing Section—1960 Meeting, Conrad Hilton Hotel, Chicago, Oct. 18. Staff Rep. Harry C. Johnson, National Safety Council, 425 N. Michigan Ave., Chicago 11.

New England Daily Newspaper Composing Room Executives Assn.—Exec. Secy. Lewis R. Greene, Westerly (R.I.) *Sun.*

New England Newspaper Mechanical Conf.—1960 Conf., Hotel Statler-Hilton, Boston, Oct. 15-16. Secy.-Treas. Walter C. Crighton, New London (Conn.) *Day.*

Newspaper ROP Color Conf.—Secy. Arthur Brashears, American Assn. of Newspaper Representatives, 141 E. 44th St., New York.

Northwest Mechanical Conf.—Hotel St. Paul, St. Paul, Mar. 4-6. Secy.-Treas. Ralph N. Carson, Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3.

Pacific Newspaper Mechanical Conf.—Ore., Sept. 23-25. Secy. Donald Newhouse, Portland (Ore.) *Oregonian.*

Packaging Institute Assn.—1960 Meeting, Hotel Statler, New York, Oct. 31-Nov. 2. Exec. Dir. Chas. A. Feld, 342 Madison Ave., New York 17.

Printing Industry of America—1960 Conv., Hotel Sheraton Park, Washington, D. C., Oct. 24-27. Gen. Mgr. Bernard Taymans, 5728 Connecticut Ave. N. W., Washington 15, D. C.

Research and Engineering Council — 1961 Meeting, Hotel Fort Des Moines, Des Moines, Ia., May 22-24. Managing Dir. Robert E. Rossell, 1411 K St., N.W., Washington 5, D. C.

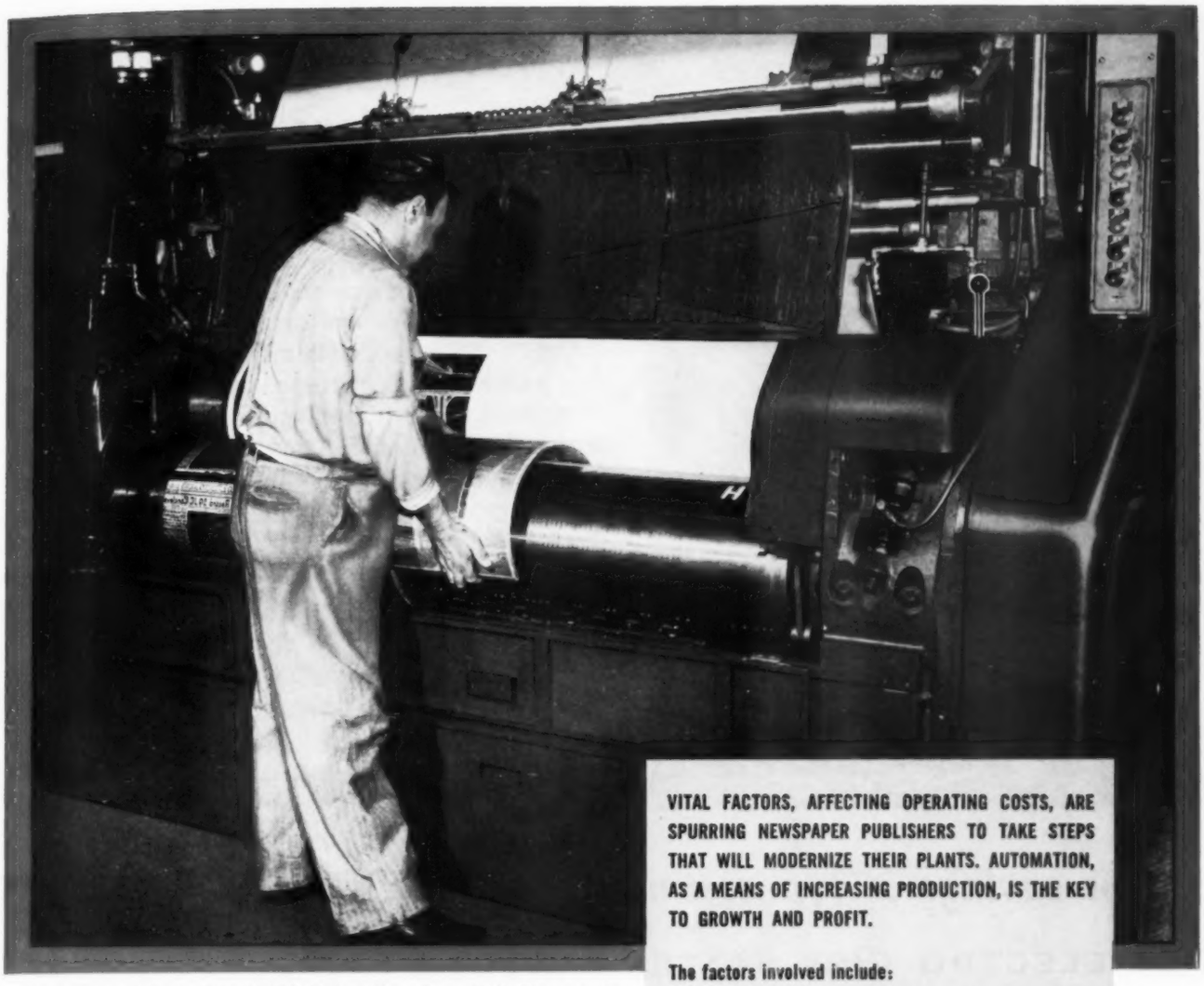
Screen Process Printing Assn., Intl.—1960 Conv., Hotel Sherman, Chicago, Nov. 11-13. Exec. Secy. Robert H. Blundred, 549 W. Randolph St., Chicago 6.

SNPA (Eastern Div.) Mechanical Conf.—1961 Conf., Hotel Dinkler-Plaza, Atlanta, Aug. 6-8. Secy. James B. Brotbeck, P. O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conf.—1961 Conf., Hotel Adolphus, Dallas, Mar. 5-7. Secy. Claude V. Capers, P. O. Box 1569, Chattanooga 1, Tenn.

Southern Graphic Arts Assn.—1961 Conf., Hotel Dinkler-Andrew Jackson, Nashville, Tenn., May 3-5. Secy. Charles E. Kennedy, 1514 South St., Nashville 2, Tenn.

Technical Assn. of the Graphic Arts—1961 Conf., Deshler-Hilton Hotel, Columbus, O., June 12-14. Secy.-Treas. Cyril A. Horton, Research Laboratories, Eastman Kodak Co., Rochester 4, N. Y.



Pressman "plating-up" on WOOD Metropolitan Press Unit. The operator brings the press to plating position and the single lockup device releases the plates when the lockup control lever is moved to "open" position. When plates are in proper location on cylinder, operator merely moves the lockup control lever to "close" position and the plates are automatically locked to cylinder, ready to print.

VITAL FACTORS, AFFECTING OPERATING COSTS, ARE SPURRING NEWSPAPER PUBLISHERS TO TAKE STEPS THAT WILL MODERNIZE THEIR PLANTS. AUTOMATION, AS A MEANS OF INCREASING PRODUCTION, IS THE KEY TO GROWTH AND PROFIT.

The factors involved include:

RISING PRODUCTION COSTS
THE TREND TO COLOR
STEADILY MOUNTING CIRCULATION

Modernization involves automation . . . Faster and more accurate plate casting—better printing facilities . . . more color and better color register . . . All leading up to higher production speeds, better-looking newspapers, lower operating costs.

Economy of operation, accomplished by the automatic controls and operations of modern equipment, produces many more papers per hour. WOOD is in the forefront with just this type of pressroom, reelroom and stereotype equipment, **specially designed to keep ahead** of today's printing developments.

If the equipment in **your** plant has become obsolete through lack of the many new improvements now available, let WOOD engineers review your problem and show you how we can help you solve it!

LET WOOD HELP YOU

PLAN NOW

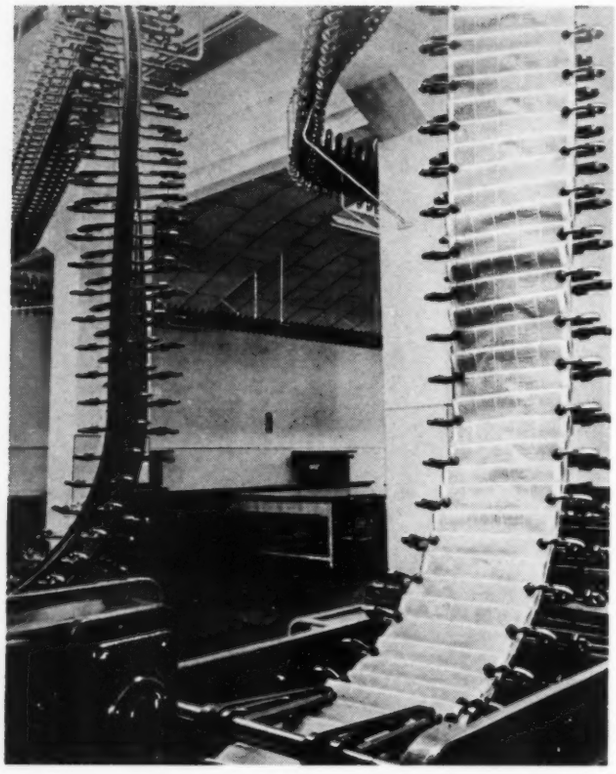
for GROWTH

"If It's Wood It's Good"

WOOD NEWSPAPER MACHINERY CORPORATION
PLAINFIELD, NEW JERSEY
Executive & Sales Office: 501 Fifth Avenue, New York 17, N. Y.

For More Information Circle 237 on Reader Service Card

RCA GRAPHIC ARTS PRODUCTS



. . . for savings in conveying!

RCA NEWSPAPER CONVEYOR*

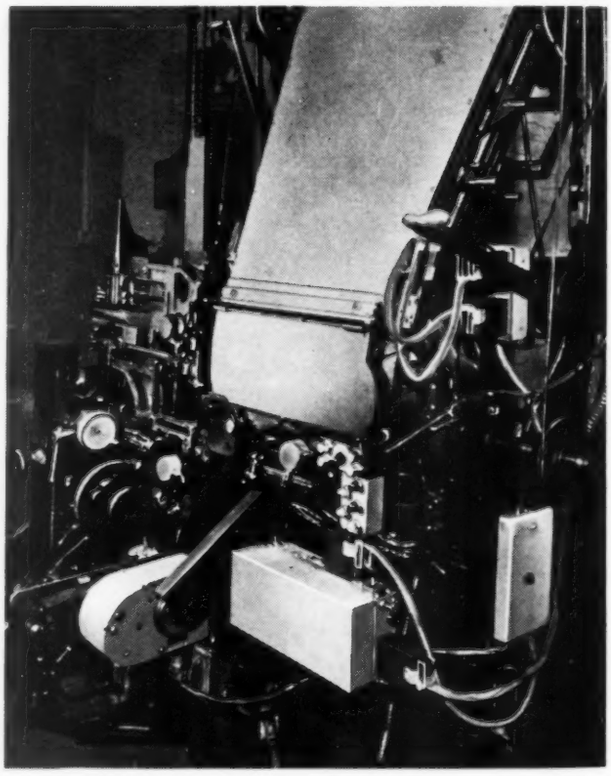
proves its superiority by drastically reducing press delays. Results of a recent comparison study show: 36% fewer press delays (delays due to broken shear pins) . . . 16% reduction in maintenance time (checking and replacing wires, changing work sheaves, tightening chains, replacing shear pin hubs) . . . negligible maintenance and cleaning costs. Results such as these point up the savings over conventional conveyors. Flexible RCA Conveyors can handle papers from one to 128 pages at speeds in excess of 70,000 per hour. Cost less to install, less to operate and maintain. Readily installed in existing as well as new facilities.

**Designed and manufactured by Fehr & Reist Ltd., Switzerland*

. . . for savings in typesetting!

RCA ELECTRO TYPE SETTER

for the Comet Model Linotype bypasses the keyboard and drops mats directly from the escapement, resulting in an actual increase of 8 to 10% more type over competitive equipment. It is capable of operating the linecaster at its maximum speed. When setting straight matter using 9-point, 11-pica lines, 30 characters per line, the RCA Electro Type Setter can operate the machine to maximum rating of 720 lines per hour. When setting market reports using 5½-point, 11-pica lines, 40 characters per line, users report they consistently get type in the galley in excess of 570 lines per hour. This RCA equipment can be installed without a keyboard assembly on the linecaster. Or, if a combined automatic and manual operation is desired, this can be accomplished by a simple switching arrangement.



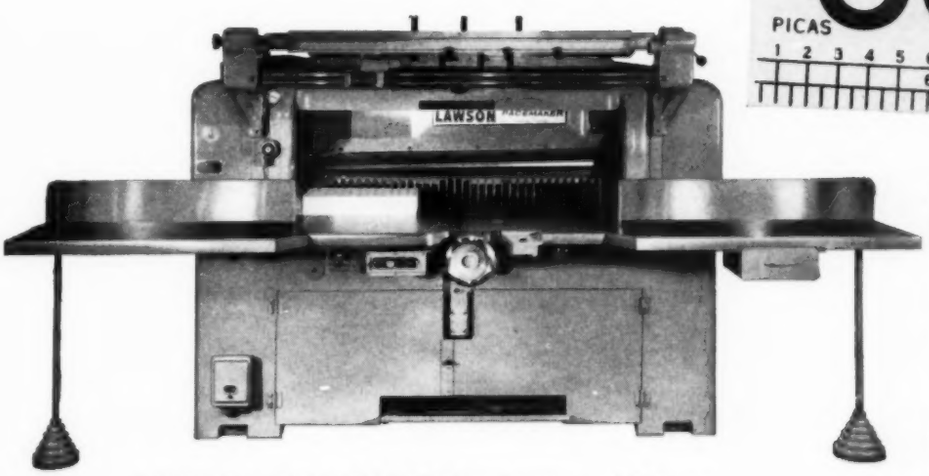
This product line is now headquartered in Camden. Inquiries are invited and should be addressed to RCA Graphic Arts Products, Dept. M-343, Building 15-1, Camden, N. J.

The Most Trusted Name in Electronics

RADIO CORPORATION OF AMERICA

For More Information Circle 149 on Reader Service Card

a size for every need ...fast accurate LAWSON PACEMAKER Hydraulic Clamp Cutters



LAWSON PACEMAKERS *cut paper* quickly, accurately, economically. 20% heavier and nearly 50% faster knife speed—size for size—than most others... *true* two-end knife action...rigid 3-point knife bar support...strong, gentle cushioned clamping...6½" knife opening...optional Electronic Spacer (.002" accuracy!) and flexible Contour Clamp. See your size in action!

THE LAWSON COMPANY
Division of Miehle-Goss-Dexter, Inc.
Chicago 8, Illinois

For More Information Circle 103 on Reader Service Card

LE NOUVELLISTE Selected SCOTT Color-Equipped Press Units

SCOTT presses

Modern plant of Le Nouvelliste
Trois-Rivieres, Que.

PIERRE DANSEREAU, PRESIDENT, SAYS: "The *SCOTT press, installed in our plant, is a solid, efficient machine, requiring little or no maintenance . . .*"

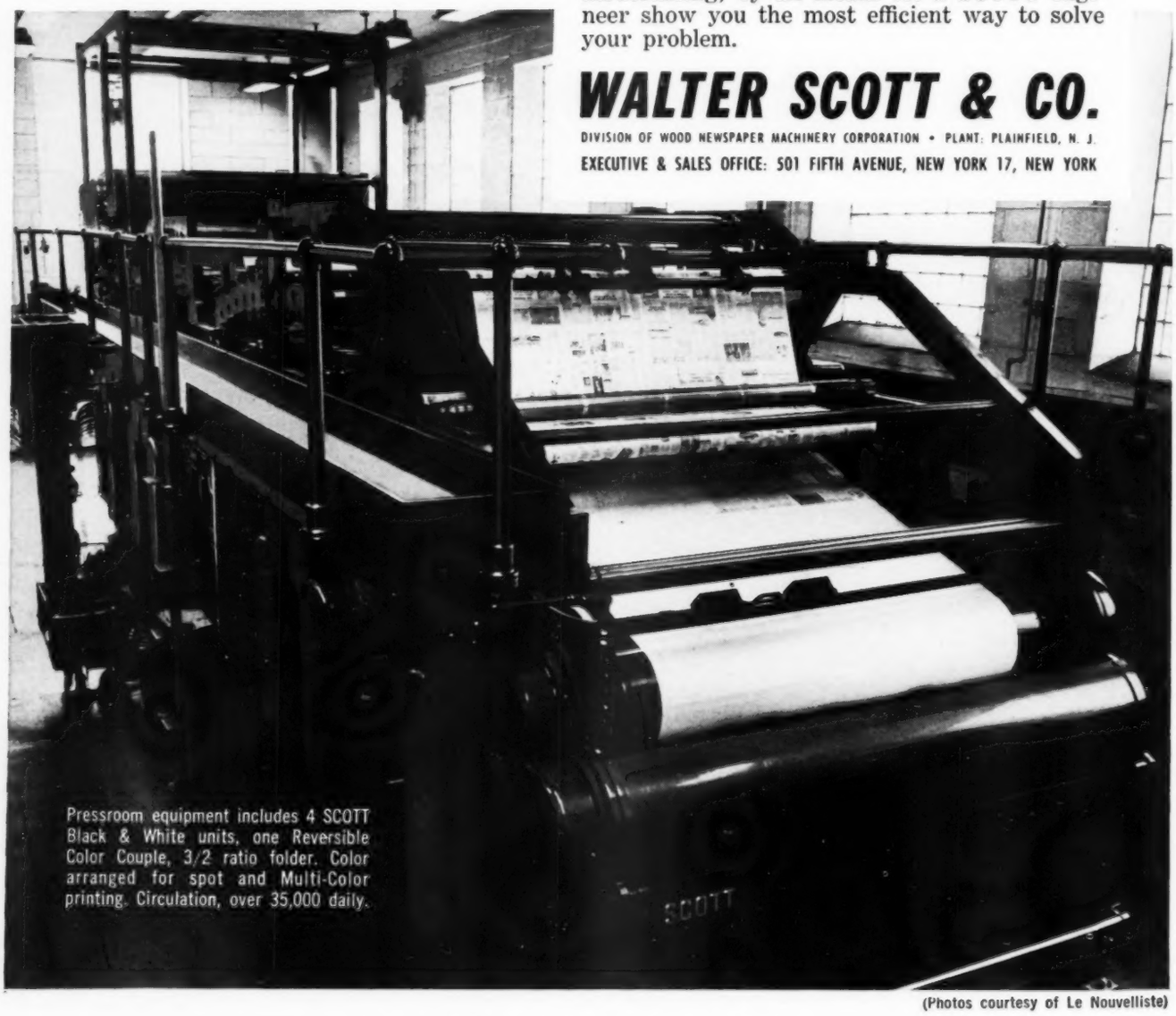
The satisfactory performance of the color-equipped presses in the plant of Le Nouvelliste is repeated in newspaper plants wherever SCOTT high-speed, streamlined units are installed.

SCOTT press units, equipped with color cylinders or Color Couples, meet every requirement for today's high-speed, spot and Multi-Color printing. If your pressroom needs modernizing, by all means let a SCOTT engineer show you the most efficient way to solve your problem.

WALTER SCOTT & CO.

DIVISION OF WOOD NEWSPAPER MACHINERY CORPORATION • PLANT: PLAINFIELD, N. J.

EXECUTIVE & SALES OFFICE: 501 FIFTH AVENUE, NEW YORK 17, NEW YORK



Pressroom equipment includes 4 SCOTT Black & White units, one Reversible Color Couple, 3/2 ratio folder. Color arranged for spot and Multi-Color printing. Circulation, over 35,000 daily.

(Photos courtesy of Le Nouvelliste)

For More Information Circle 156 on Reader Service Card

Now You Can Try The Beautiful New

BLUE RIBBON CONTRAST MAT

Instantly Popular With All Users

BLUE RIBBON*

*REG. U.S. PAT. OFFICE

The Contrast is an entirely new mat in the Blue Ribbon Line featuring Color Contrast with Beautiful Reproduction ★ Ample Casts ★ Fine Release ★ Accurate Register

FOR SAMPLES or DEMONSTRATIONS, WRITE:

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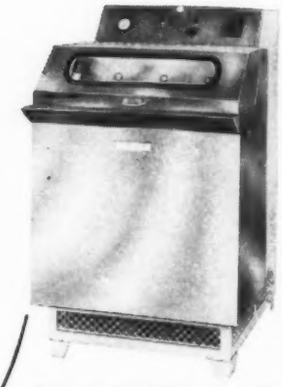
For More Information Circle 36 on Reader Service Card

ONLY Master PRODUCES PLATE MAKING EQUIPMENT FOR ALL THE REVOLUTIONARY LETTERPRESS-RELIEF PROCESSES

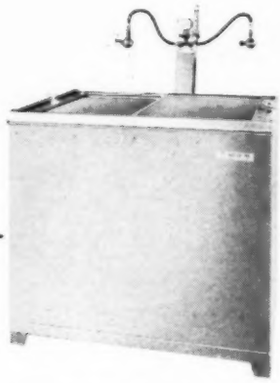
The introduction of DYCRIL* by DuPont provides the Graphic Arts Industry with a new tool for expanding the relief plate market. This plastic material possesses inherent qualities and possibilities not obtainable with other materials. Never before has the industry had the possibility of such a diversified selection of materials and processes from which to choose the one best tailored for the job requirements.

Abreast with progress, MASTER is proud to offer rugged and serviceable quality equipment for the production of DYCRIL* relief plates.



FLAT WASHOUT UNIT ▲

DYCRIL*



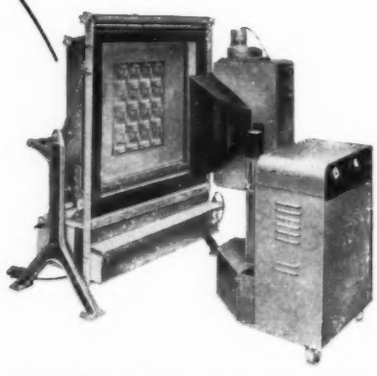
CONDITIONING CABINET ▲

Only **MASTER** produces plate making equipment for all of the following processes:

- DYCRIL* PLATES
- POWDERLESS ZINC PLATES
- WRAP-AROUND PLATES
- POWDERLESS MAGNESIUM PLATES
- POWDERLESS COPPER PLATES
- PRECURVED PLATES

for detailed information on any of the above items please contact your supplier or write to MASTER SALES & SERVICE CORP., Wyncote, Pa.

We welcome your visitation to our laboratory showrooms for demonstration of any of the above processes. Please contact us for appointments in advance.



DYCRIL* FLAT VACUUM EXPOSURE UNIT and ARC LAMP ▲

*Du Pont's trademark for its photopolymer printing plate.

MASTER SALES & SERVICE CORP. WYNCOTE, PA.

For More Information Circle 113 on Reader Service Card

"Automatic strapping machine speeds-up tying operations 24%"

says Mr. Richard H. Gillespie, Circulation Manager, Stamford Advocate, *Stamford, Connecticut*

"We can handle 21 bundles a minute with our new USS Steel Strapping Machine," says Mr. Gillespie. "The best we could manage before was only 16 bundles a minute. This means that we're now able to hit the streets with our editions in 55 minutes. And, we've saved twice the lease cost of the machine, in labor costs.

"We use the Model 1250, with a 33" diameter and 18 gauge wire . . . gives us plenty of binding strength and a uniform tie. There's no doubt in our minds about the value of this machine. We've increased plant efficiency, saved money and completely eliminated operational bottlenecks."

Free Technical Assistance. Our Strapping Specialists are available to help you work out troublesome bundling or packaging problems. For details, fill in the coupon. *USS is a registered trademark*

U. S. Steel Supply Division of United States Steel

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Complete Strapping Service • **Strapping** • **Tools** • **Technical Assistance**

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Please send me a free copy of your Sweet's Catalog Insert, and have a Strapping Specialist call.

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Company_____

Address_____

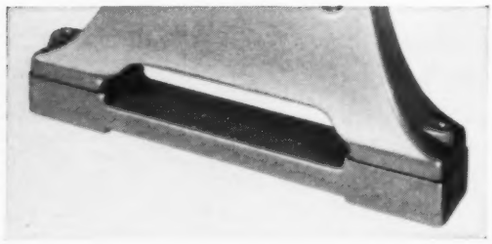
City_____ **Zone**____ **State**_____

For More Information Circle 70 on Reader Service Card

ONLY **Chandler & Price**

Offers MORE Working Area On a 30½" Full Hydraulic Cutter

In the illustration above, note the long, accurate side plates; the two measuring scales inserted in the table; the light which illuminates the table top; the overhead measuring tape graduated in 1/12 and 1/16 inches; the tape magnifier; and the convenient location of all operating controls.



PEDESTALS

The standard height of the table from the floor is 34". For those who want a higher table, new cast iron pedestals are now available as extra equipment. Heavily ribbed and provided with fastening holes, the pedestals add 2½" of height to the cutter, making the table 36½" from the floor.

With a "New Look" and new table, the C & P 30½" Full Hydraulic Cutter now has more than 590 square inches of table area as standard equipment. This table extends 19½" in front of the knife—providing the largest table area of any cutter in its field.

In addition, large 12" x 15" Extension Tables are available as extra equipment. These tables provide an added 349 square inches of working area, so that the total area is over 6½ square feet.

But more working area is only one of the reasons which make the C & P 30½" Full Hydraulic Cutter such an exceptional cutter in its size class and price class.

Motor, hydraulic pump and all other operating mechanisms are located on the frame below the cutting table. Oil cannot drip on the stock. The hydraulic cylinder actuating the knife is at the right; the hydraulic cylinder operating the binder clamp is under the left side of table. Two conveniently-located levers require two-handed safety operation during the clamping and cutting cycle. A separate binder operating lever is not used. Binder clamp is pulled down from both ends, insuring parallel clamping at all times. Cutter can be equipped with Manual or Automatic Spacers.

If you are considering a cutter in the 30½" size range, you will do well to check the C & P 30½" Full Hydraulic. Until you do, you can never realize the unusual new advantages this cutter will provide in speed, accuracy and economical operation. Ask your C & P dealer or write for Circular No. A-120 for details.

THE CHANDLER AND PRICE COMPANY 6000 Carnegie Avenue Cleveland 3, Ohio

For More Information Circle 39 on Reader Service Card

. . . and you can have CONFIDENCE in the Uniform High Quality of

PERFECTION® PERFORATOR TAPE

For ALL Automatic TYPESETTING Needs

New horizons of communications require the proven dependability of PERFECTION® PERFORATOR TAPE.

Every operation in the manufacture of this uniform, high quality tape is scientifically controlled to produce a trouble-free, smooth-performing vehicle for the accurate and swift transmission of vital data.

Leaders in the communications field and in industry have used PERFECTION® PRODUCTS with the most complete CONFIDENCE and satisfaction. Perhaps, you can too.

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LOOKING FOR

IN LETTERPRESS INKS?

Speed King's 18 easy-to-mix colors and black are all you need for fast, high quality color work. Packed in 1 and 5 lb. cans, ready to run on any job in the shop. Ask your IPI man for a Speed King color card . . . it tells the whole story!

IPI, IC and Speed King are trademarks of Interchemical Corporation.

CORPORATION DIVISION

EXECUTIVE OFFICES: 67 WEST 44th STREET, NEW YORK 36, N. Y.

We have doubled our production capacity

WORLD'S LARGEST . . . Wood Flong has opened its second half century with a million dollar expansion program that has doubled the production capacity of the company, already the world's largest producer of stereotype mats. Wood Flong thus maintains its leadership in service, quality of product and ready supply.

QUALITY CONTROL . . . Maximum uniformity of product, according to every customer's individual requirements, has been even further assured by installation of the finest, ultra-modern mat-making machinery.

CONSTANT SUPPLY . . . Because of this enormous new production capacity there will never be a shortage of the supply of Super Flongs or other Wood Flong mats.

RESEARCH AND DEVELOPMENT . . . Wood Flong was the innovator of the no-pack process now accepted throughout the industry. Wood Flong's new expansion program has placed the company in a position to *anticipate* the industry's needs . . . continuing the company's 50 year record of unique service to the graphic arts industry.

ONE-PIECE SUPER FLONG *NO-PACK MAT*
A NEW ERA IN STEREOTYPING

WOOD FLONG CORPORATION

HOOSICK FALLS, NEW YORK
NEW YORK OFFICE: 551 FIFTH AVE.; PHONE: MU 7-2950
SERVING THE GRAPHIC ARTS INDUSTRY EXCLUSIVELY SINCE 1911

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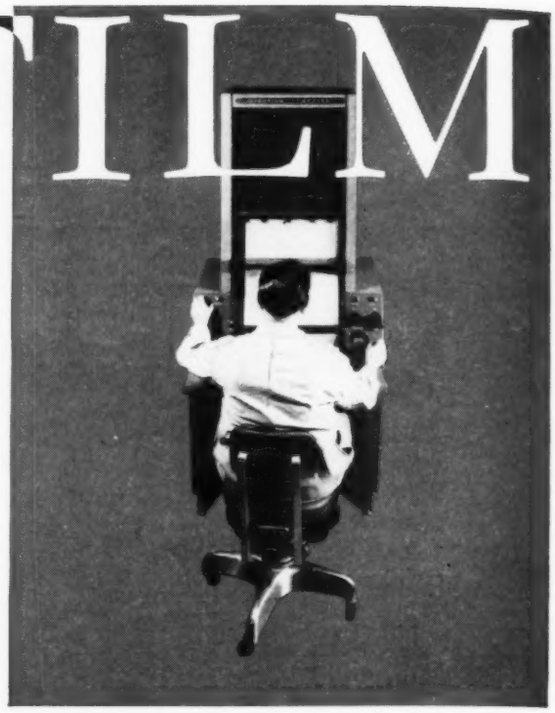
←*For More Information Circle 96 on Reader Service Card*

LINOFILM



the world's only photocomposition **system** —creates the world's most useful cold type whole pages at a time

THIS MAN is operating the world's only photocomposition Composer . . . a complete cold-type make-up department right at his fingertips. With ease and speed that are amazing (in the true sense of the word) he works directly over the original lay-out, placing type precisely where indicated (even at angles up to 90°) and creating type in any size from 4 to 216 points.

A new concept in versatility is the Linofilm System. This Composer is only one of four unique units that can be combined in countless ways to make a system geared to your specific needs.

Linofilm produces crisp, black type on photo paper or film . . . in exactly the form to be sent to the platemaker. Its economies in investment and operation are unmatched.

Independent Keyboard operation increases productivity by freeing the Photographic Unit so it can handle the output of several keyboards. The operator produces tape (as well as a typescript of his copy for immediate inspection) and this tape carries all instructions for the completely automatic Photographic Unit. All typographic requirements are controlled by the keyboard operator; then the Photo Unit produces type at the rate of 720 *characters per minute!* Lines as long as 42 picas; type in all the rich variety offered by the great Linotype typographic library.

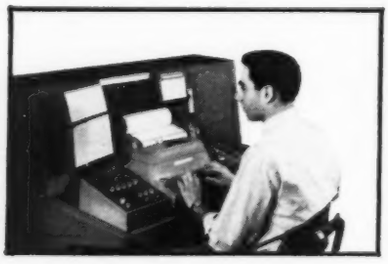
On a simple, compact panel of controls (as easy to learn as to use) the operator can use 18 different fonts in 6- through 36-point. Letterspacing (even kerning), quadding, centering . . . all are touch-button functions.

Corrections are just as easy—and the automatic Film Corrector is a tremendous aid to productivity. Alteration, additions or corrections are welded right into the original film with *no need for opaquing*—and corrected film is as strong and precise as the original. Old and cumbersome correction methods are eliminated.

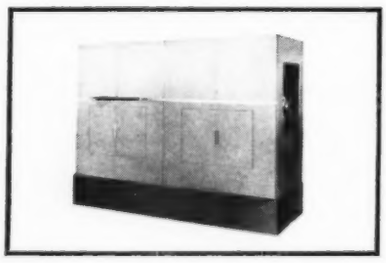
Only Linofilm offers all these features . . . plus many more. No other method includes equipment even vaguely similar to the Linofilm Composer and Corrector. That is why the Linofilm *System*—the world's only cold-type *system*—is lowest in purchase or leasing price, lowest in operating cost, lowest in time required to *complete* a finished job, highest in productivity per man-hour.

With all these advantages available to your plant, it is a wise investment of time and thought to investigate Linofilm thoroughly. Contact your Linotype representative, or write to Mergenthaler Linotype Company, 29 Ryerson Street, Brooklyn 5, New York.

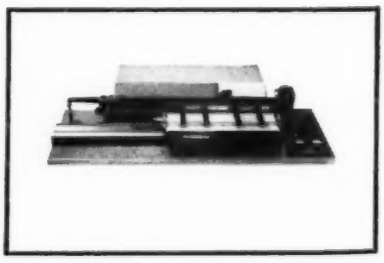
LINOFILM



The Keyboard



The Photo Unit

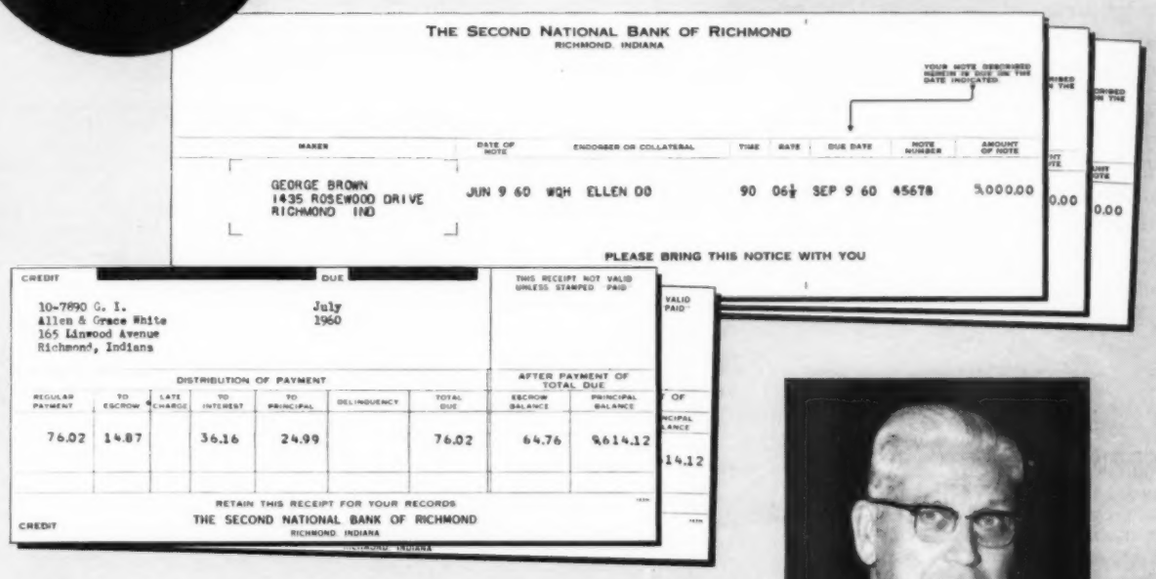


The Corrector

For More Information Circle 116 on Reader Service Card

NCR Paper
no carbon required
TRADE MARK REG. U.S. PAT. OFF.

Established in 1872, The Second National Bank of Richmond is eastern Indiana's largest bank.



J. O. Parshall, President of The Second National Bank of Richmond.

"NCR PAPER repays its cost by saving time and effort"

—THE SECOND NATIONAL BANK OF RICHMOND, INDIANA

"We began using NCR Paper (No Carbon Required) when we installed a new accounting system for real estate mortgages and commercial loans.

"We find NCR Paper duplicate mortgage loan receipts save time for our customers and employees. We also get a clear readable record of each payment and new loan balance.

"Moreover, in one posting operation, NCR Paper commercial note notices in triplicate produce the ledger record, customer note notice, the register copy and the maturity tickler.

"Although NCR Paper costs more than forms with carbons, the time savings and other advantages have a money value that more than offsets the extra cost. We estimate the increased efficiency and customer goodwill resulting from our use of NCR Paper saves us the entire cost of the paper every year."

J. O. Parshall

President, The Second National Bank of Richmond

Another Product of

THE NATIONAL CASH REGISTER COMPANY, Dayton 9, Ohio

1039 OFFICES IN 121 COUNTRIES • 76 YEARS OF HELPING BUSINESS SAVE MONEY

NCR PAPER ELIMINATES CARBON PAPER

For More Information Circle 208 on Reader Service Card

HELPFUL LITERATURE

FOLDERS · Sales Aids · Instruction Sheets · BULLETINS · Catalogs · BOOKLETS · Brochures

Circle Numbers on Reader Service Card in This Issue

Keep Yourself Informed. The folders and bulletins listed below all pertain to modern equipment, supplies, processes and/or methods. These have been prepared especially for plant managers, superintendents and foremen. Please circle the numbers on the Reader Service Card in this issue for the bulletins you wish to receive. Drop the self-addressed card in the mail. PRINTING PRODUCTION will forward your request.

Composing Room

ELROD STRIP MACHINE

Information on the Elrod machine has been prepared by Ludlow Typograph Co. The machine produces strip material for spacing, rules and bases. It may be heated by gas or electricity and is available in six models. Circle No. 334 on Reader Service Card.

NOLAN REMELT EQUIPMENT

Information on the Remelter and Meltevator has been prepared by Nolan Corporation. Circle No. 326 on Reader Card.

MAGNESIUM NEWSPAPER BASE

A magnesium base recommended for newspapers is the subject of literature prepared by Monomelt Company, Inc. Height of the base is 0.001 in. Samples are available. Circle No. 328 on Reader Service Card.

MATRIX CONTRAST COLOR SERVICE

A brochure explaining the operation of the Matrix Contrast Color-coding system has been made available by Matrix Contrast Corp. The system is said to eliminate wrong font mistakes and reduce composition errors and transpositions. Circle No. 330 on Reader Service Card.

UNIVERSAL STRIP CASTER

A folder giving the specifications of the Universal strip caster has been published by Universal Mono Tabular Corp. Included in the folder is a sample 2-pt. hairline. Circle No. 332 on Reader Card.

SELECTRO-MATIC QUADDER

An illustrated brochure featuring the Selectro-Matic Quadder for linecasting machines has been published by Star Parts, Inc. Circle No. 338 on Reader Service Card.

Platemaking

BEVERIDGE AUTO-PACK MATS

Information on and samples of Auto-Pack packless mats are available from Beveridge Paper Co. Reportedly, the mats retain 0.030 to 0.035 space depth, from 0.040 form depth. Circle No. 329 on Reader Service Card.

PHOTOENGRAVING ENGINEERING SERVICE

The Photo Products Div., Imperial Type Metal Co. is offering a photoengraving engineering service. Consultation, survey, layout and equipment recommendations are included in the service. Circle No. 327 on Reader Service Card.

FLIP-TOP PLATEMAKER

The Flip-Top platemaker is described in bulletin A500PP issued by nuArc Company, Inc. The unit is available in models measuring from 13 in. by 18 in. to 50 in. by 62 in. Circle No. 331 on Reader Service Card.

ANSCO PRODUCT SAMPLER

A test sampler of Ansco Graphic Arts products and a booklet on the Graphic Arts and photography have been made available by Ansco Div., General Aniline & Film Corp. Circle No. 325 on Reader Service Card.

KENRO CAMERAS FOR EKTALITH

Literature which describes Kenro cameras to be used with the Ektalith method has been issued by Kenro Graphics, Inc. Ektalith adapters are available for the Kenro vertical 14 in., 18 in. and 24 in. cameras. Circle No. 312 on Reader Service Card.

MOTOR-DRIVEN ARC LAMP

A brochure describing the Comet 45 in. motor driven arc printing lamp has been published by Strong Electric Corp. The lamp provides illumination over a work area measuring 28 in. by 36 in. It is recommended for small reproduction shops and the screen process industry. Circle No. 316 on Reader Service Card.

This color matcher for offset inks is available from Kohl & Madden Printing Ink Corp. Thirteen standard colors appear on the chart. Circle No. 306 on Reader Service Card.

EQUIPMENT FOR PHOTOPOLYMER PLATES

Equipment for processing Dycril photopolymer printing plates is described in literature issued by Robertson Photo-Mechanix, Inc. Circle No. 321 on Reader Service Card.

HAMMOND STEREO EQUIPMENT

Literature has been made available on stereo equipment manufactured by Hammond Machinery Builders, Inc. Included is information on the Easy Kaster, scorcher, radial router and plate shaver. Circle No. 324 on Reader Service Card.

ALICO INFORMATION SHEETS

Information sheets on the Alico slug gauge, register-trimmer and Magni-Chec for color register have been prepared by Alico, Incorporated. Circle No. 339 on Reader Service Card.

KODALITH ORTHO FILM TYPE 3

A folder describing Kodalith Ortho film Type 3 with Estar base has been prepared by Graphic Reproduction Sales Div., Eastman Kodak Co. Reportedly, Type 3 film features high speed orthochromatic emulsion, high contrast and high speed. Circle No. 340 on Reader Service Card.

LITTLEJOHN BURNING-IN MACHINE

Technical data on the Littlejohn type 148, ejecta plate burning-in machine, has been published by Henry P. Korn Associated, Inc. Plates measuring to 24 in. by 20 in. may be handled by the unit. Circle No. 320 on Reader Service Card.

SPECIAL MICRO-MIX

A manual dealing with special Micro-mix has been published by Rolled Plate Metal Co., Div. of Atlantic Zinc Works, Inc. The special Micro-mix is used in the same manner as standard Micro-mix and is recommended for plants with light, sporadic work loads. Circle No. 311 on Reader Service Card.

Pressroom

WINTER COMPOSITION ROLLERS

Literature describing rollers designed for use during the winter months is available from Rapid Roller Co. Circle No. 333 on Reader Service Card.

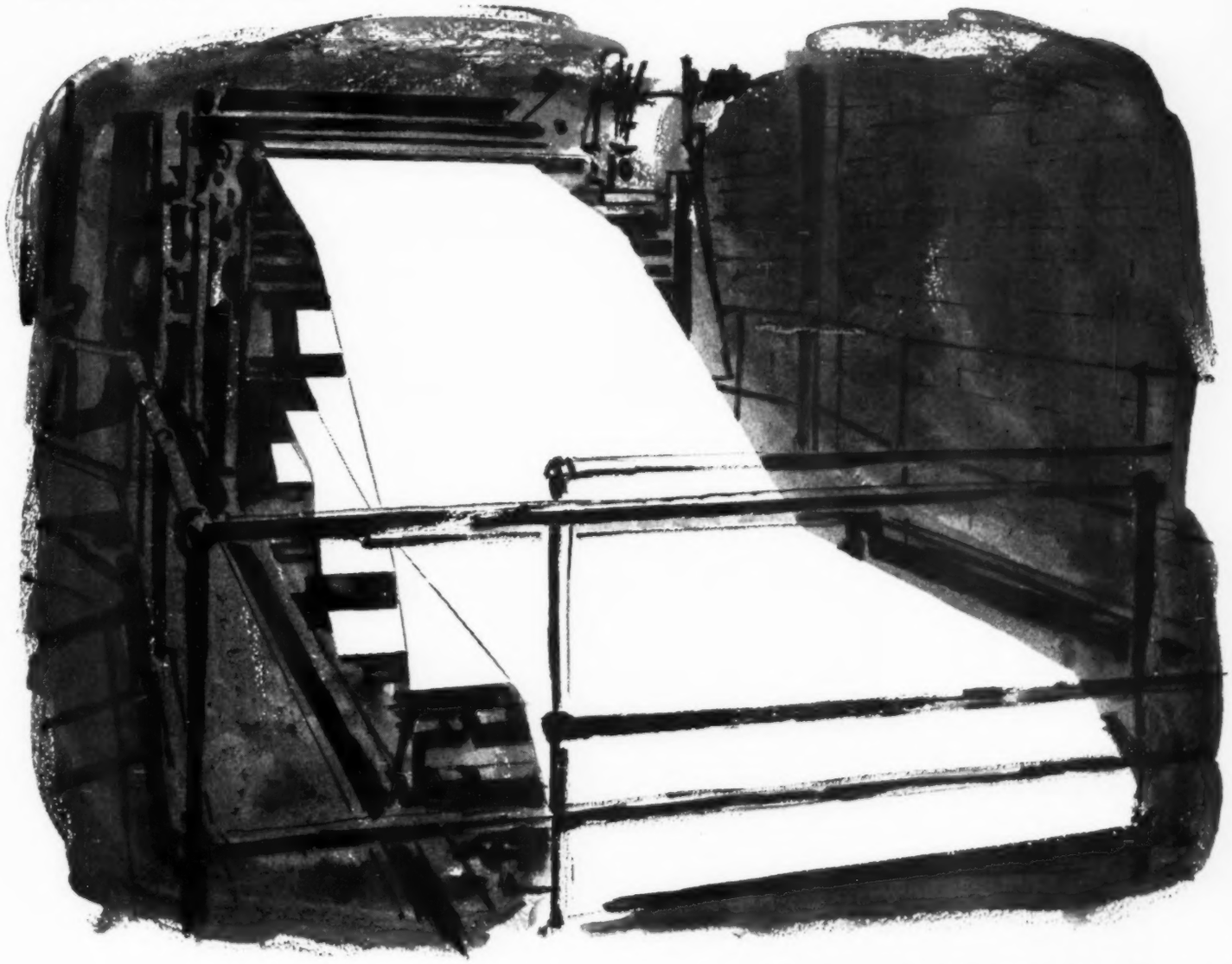
HARRIS TWO COLOR OFFSET PRESS

A booklet giving details on the Harris two color 25 in. by 38 in. offset press has been made available by Harris Seybold Co., Div. of Harris-Intertype Corp. Described in the booklet are the six main

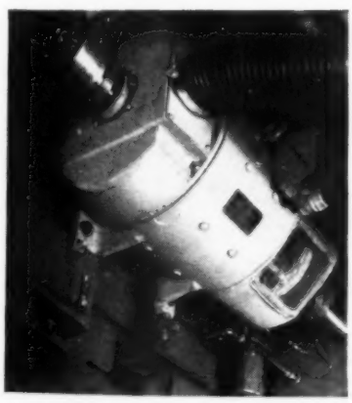
(*Continued on Page* 112)

For More Information Circle 68 on Reader Service Card→

Before you buy a drive system . . .



Let's Talk Press Drive FLEXIBILITY



G-E KINAMATIC® d-c motors mounted at each *San Francisco Chronicle* press unit provide all the power you need, whenever you call for it.

COMPACT CONTROL ROOM at the *Philadelphia Bulletin* contains all the G-E control, rectifier, and power-distribution equipment for 72 press units and 14 folders.

Flexibility is one of your most important requirements. As a newspaper production manager, you must have complete freedom concerning which units are operated with which folders. Such flexibility enables you to quickly and efficiently set up and produce a paper, regardless of size fluctuations between editions.

YOUR GENERAL ELECTRIC DC DRIVE SYSTEM takes such orders in stride. The G-E system enables you to "transfer" drives from press to press whenever your requirements change—or whenever press trouble develops. You simply throw a switch for each unit or folder involved. This switch connects everything associated with the drives—motors, dynamic braking, push buttons, press accessories, press lights—even the reel-tension and paster equipments, if you like.

BUILT-IN CAPABILITIES FOR EXPANSION add to the flexibility of your G-E drive system. As your presses grow in size, it is easy and inexpensive to add drive capacity. All you need is a motor, a selector switch, and accessories for each new unit. No costly, additional control-room equipment is required.

CALL YOUR LOCAL GENERAL ELECTRIC Apparatus Sales Office for more information about the G-E press drive. And write for Bulletin GET-2504, Section 653-54, General Electric Co., Schenectady 5, N. Y.

Progress Is Our Most Important Product

GENERAL ELECTRIC

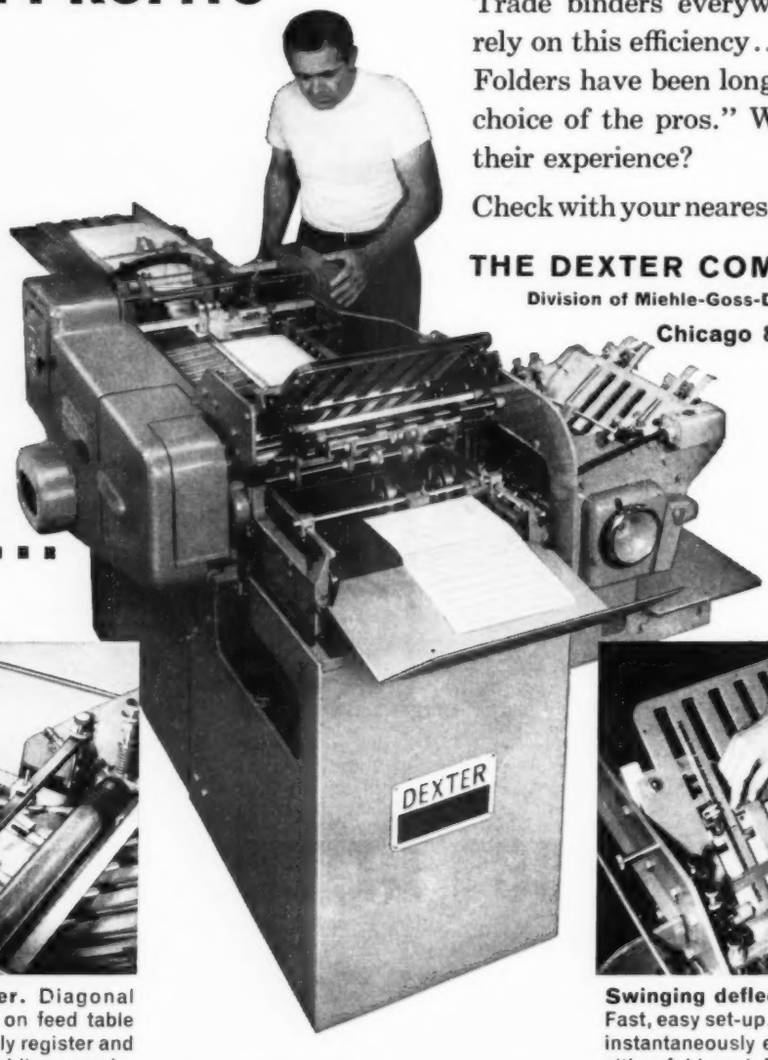
HERE'S WHY MORE TRADE BINDERS INCREASE PROFITS WITH DEXTER WS & AS FOLDERS...

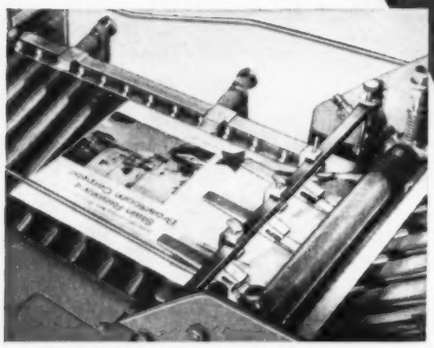
The rugged new Dexter (Cleveland) WS (14 x 20″) and AS (18 x 24″) Folders profitably handle the volume production from modern small sheet, high speed presses with precise dependability. They fold, score, perforate, slit, trim and even paste in one continuous operation... at geared speeds to 4200 inches a minute.

Trade binders everywhere have come to rely on this efficiency... that's why Dexter Folders have been long recognized as "the choice of the pros." Why not profit from their experience?

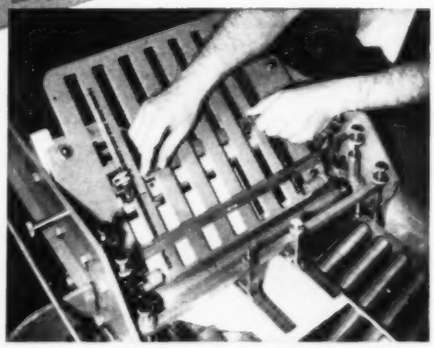
Check with your nearest MGD office today.

THE DEXTER COMPANY
Division of Miehle-Goss-Dexter, Inc.
Chicago 8, Illinois





Automatic sheet register. Diagonal rollers and ball side guides on feed table and cross carrier automatically register and advance sheets at maximum folding speeds.



Swinging deflectors on all fold plates. Fast, easy set-up, no tools required. Can be instantaneously engaged or disengaged to either fold or deflect the sheet.

Multiple-up signature folding. Fold and slit in parallel section, separate pieces are delivered to right angle section. Nearly 50% production increase over one-up folding.

Score, perforate and slit in both sections. Done with exceptional accuracy. Ordinary adjustments are quick and easy...shafts are removable for completely new set-ups.

Air wheel continuous feeder. Handles all stock without scuffing. Separate air pump motor, sheet caliper, movable suction head and governor roll, variable speed device.

For More Information Circle 49 on Reader Service Card

PRINTING PRODUCTION

There Are Two Ways to Hang

When Ben Franklin signed the Declaration of Independence he turned to John Hancock and said, "We must all hang together, else we shall all hang separately."

Harry E. Collins, a Chicago photoengraver who cites the above, says the time has come for the printing industry to choose as Franklin did between hanging separately or hanging together. He refers to one of the major issues of the Graphic Arts today—whether advertising and other forms of public communication fields shall spend their money in print or in broadcasting by radio and television.

Collins heads a committee of impressive industry talent formed for the purpose of launching a campaign to promote the value and impact of the printed word. Its plans are formidable for this group intends to enlist the support of all segments of the Graphic Arts in the project. The program is set for introduction this month at the American Photoengravers Assn.'s convention in Buffalo. It is hoped the idea will spread to other industry groups who should be vitally concerned.

Where do printers stand in the competition for the advertising dollar? According to the figures of 11 leading advertising agencies, these companies spend 53.19% for broadcast media against 46.81% for printed advertising. These percentages will shock many Graphic Arts firms who depend upon ad budgets for a large portion of their plant's business. They should also erase any notion of complacency that all is well and "we're getting all we're entitled to."

Thanks to watchdogs like Harry Collins, the Graphic Arts has been made aware that all is not well. It has become imperative that printers, instead of selling letterpress against offset, or any print process against any other print process, should take advantage of every opportunity to sell print. If we in the Graphic Arts are not to "hang separately" in competition with the broadcasting media, we must all "hang together" to promote print.

PRINTING PRODUCTION'S EDITOR REPORTS:

U. S. is Pace Setter for BRITISH and FRENCH PRINTING

By EDWARD H. OWEN

GREAT Britain and France are countries that are in a hurry. There is the feeling of urgency in the printing plants to catch up in production, newer equipment, trained manpower and physical expansion.

The pace setter is the printing industry of the United States. The American printer is considered to be far advanced in technology; to possess plants with the very best of high speed machines; to be constantly expanding and modernizing his facilities. There exists the determination to at least pull even with him, and there are many reasons to believe this will happen.

This was my main observation at the end of an 8000 mile trip to these countries. It included talks with industry leaders and printers in general; visits to commercial, newspaper and platemaking plants in London, Paris and the small towns of England, Wales and France. Their current problems parallel our own, but some go back five, ten or more years when similar situations were confronted by the U. S. printing industry.

The same can be said of their procedure of operation. One evening I watched the final makeup stages of the first edition of the London *Times* and commented: "It's like watching an American newspaper going to press." Though there is similarity in how they print in these countries, the end product, in some cases, differs from what we are accustomed to seeing in U. S. printing.

Where They Are Lagging

It is not too difficult to cite places where the industries of these countries are lagging. This I did by a comparison with the U. S. printing industry; determining how far they had developed in thinking and methods. Using time as a measurement, the difference between them and us seems to amount to eight, ten or more years (behind us).

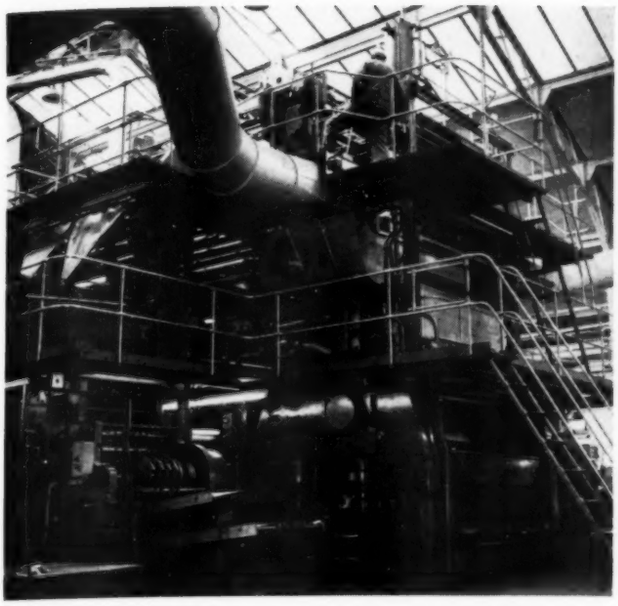
For example, photocomposition is just beginning to appear in British plants. Approximately eight Fotosetters and the like number of Monophotos are in use in England. Printers there talk about photocomposition (as we did a decade ago), but few understand it and even more have yet to determine how it can be applied to their company's operations. France has virtually no photocomposition although a few have plans for its eventual installation.

The preponderance of printing is done from hot metal in both countries although there are signs of offset's gaining ground. French and British printers now see the benefits in combining litho with their letterpress business and are taking steps to install the process.

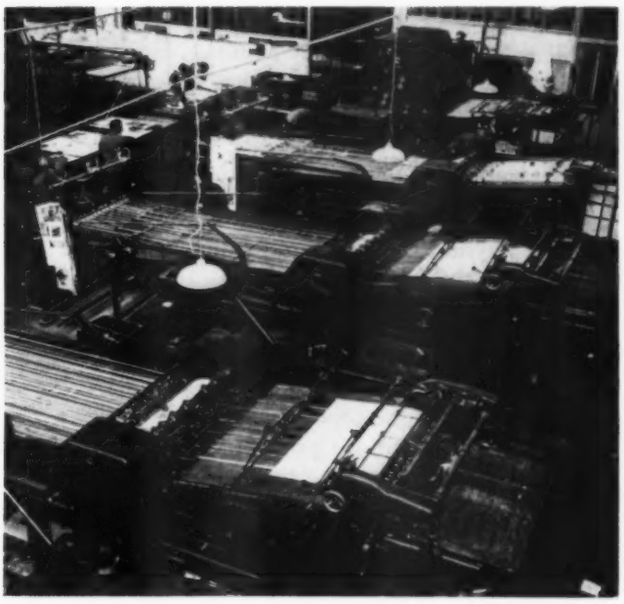
Most Severe Problem

The most pressing problem in British printing is the human element—a problem America faced in the late 1940s. Labor is suspicious

Printing industries of Great Britain and France trail their American counterpart, but signs point to their catching up on many fronts. An American editor observes progress made in other countries.



The French weekly newspaper, *L'Auto Journal*, is printed on this Marinoni web offset press in the Paris plant of Imprimerie Georges Lang. The high quality of the full color illustrations, which are printed on newsprint, deserves a superior rating.



One of France's most progressive printing organizations is that of Lang Grandemange S.A., located in Paris. Press in background (the Elby) will accommodate plastic and rubber wrap-around plates and is being used on some magazine work.

of management and imposes self-beneficial regulations for acceptance of some developments. Management is critical but has trapped itself by not taking steps beforehand. Management needs an educational program to win labor's acceptance of new ways of doing things.

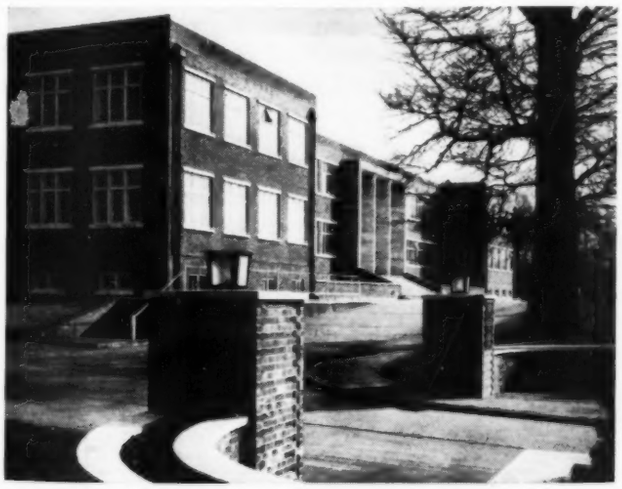
An increasing demand for printing in both countries has resulted in a labor shortage. Most serious aspect of the situation is a lack of college trained young men to enter the Graphic Arts.

Many printers of Great Britain and France bemoan the fact that printing is becoming less a craft and more of a technological process. It is not uncommon in these countries to find small town printers still setting type by hand for some surprisingly big jobs.

Quality—in both raw materials and the finished product—is one of the chief concerns of the British and French production executive. For instance, the French want better paper; the British are becoming more quality conscious because of customer demand and competition. These are some of the instances in which progress is retarded in the Graphic Arts of Britain and France.

There are many plus signs, however, for the Graphic Arts industries of these countries. When we take into account the effects of two major wars on the economy, the drain on manpower and physical resources of each nation, it is surprising to find that printing is progressing as satisfactorily as it is in these areas.

I use the term "boom" quite accurately in describing conditions there. Equipment sales are at their highest peak; many of the larger plants are working round-the-clock while the smaller ones are putting in overtime; management is either in the process of or talking about plant expansion, and earning power



Great Britain's printing industry attacks its technical problems through research conducted in this building. It is the headquarters of Printing and Allied Trades Research Assn. (PATRA) located 40 miles from London which is supported by British printers.

The small print shops of the United Kingdom are re-equipping with modern machines. This one, in Llanidloes, Wales, has installed a Heidelberg platen press. Examining a press sheet are Melvyn Lloyd, E. Owen and Peter Leech.

of the average worker is increasing.

There are some areas where the European has shown superiority over the American printer. The French weekly newspaper, *L'Auto-Journal,* produced by web offset with a liberal use of full color editorial illustrations, deserves a superior rating over anything of the same nature done in the United States.

The newspaper is produced in the Paris plant of Imprimerie Georges Lang and is printed on newsprint using a Marinoni web offset press. Size of the paper is from 28 to 32 pages which are produced at the rate of 40,000 complete papers per hr. The press run numbers about 400,000 copies each week which can be purchased at any newsstand in France. In addition to the fine color work, black and white printing in *L'Auto-Journal* is of exceptionally high quality for a newspaper.

Britain's printing industry has a better appreciation of what research and development work can achieve than does America's. This is evident by the support of printing firms of the Printing and Allied Trades Research Assn. (PATRA) located in an impressive modern building some 40 miles from London.

Besides doing basic and applied research, the organization offers its 700 printing and 200 packaging member firms a variety of services. These include a general information department containing all sorts of printed reference material for research and study. Testing of newly-developed machinery is also performed at PATRA.

American Influence in Europe

The American influence is as noticeable in French and British printing plants as is the European influence now seen in American companies. It is not uncommon to find American-developed presses and other machines playing important parts in a company's production. For example, in Britain there are 1000 American-made Ludlow machines.

The American magazines, *Time, Life, Newsweek, Reader's Digest,* etc., each print international or European editions in Europe. Most of these are produced by web offset or rotogravure which are the popular processes for magazine work. The consensus is that rotary letterpress

This group is planning the sale of Harris offset presses in Britain. Left to right are: Philip Crowley, managing director; Leslie Elsbury, press relations; Caspar Mitchell, advertising manager, and Derek Burn, home sales manager, all of Intertype Limited.

is too expensive for this kind of work.

Two American daily newspapers are now being produced for the European continent. The New York *Herald-Tribune* and the New York *Times* are Paris-printed and can be purchased in most large cities on the day of publication.

The newest development is the change in production to be undertaken this month by the *Times.* This newspaper will print virtually the same edition simultaneously on two continents. As the first edition reaches the New York newsstands, a smaller version of the same paper will roll from the presses in Paris. It will work in this manner:

Copy will be transmitted by Teletypesetter from New York. It will be received in punched tape form at the Paris plant where it will be fed into one of the five Intertype linecasting machines. Page makeup instructions and a front page dummy will be sent by wire photo direct to Paris. Possibly this system is the forerunner of world-wide publishing from a central point.

Hot metal typesetting in the British Isles is the concern of A. H. Walker, manager, and his assistant, C. W. Foulser, of Linotype Machinery Ltd.

Although I looked for signs in the plants visited of printing being done for export to the U. S., I found virtually none. Printers in general didn't think much of the idea which would probably be the same feeling of a Baltimore printer if the situation were reversed.

Most printing companies do not think in terms of export because they are too busy satisfying domestic demands. There is also the problem of working at such long range with the customer. Despite this, the opinion is shared by many that printing will eventually cross national borders and the much talked about Common Market will become a reality.

The Famous London *Times*

When I said earlier that the end product was different than what we are accustomed to seeing in U. S. printing, I was thinking primarily of my visit to the London *Times.* This famous newspaper, published since 1785 at Printing House Square, differs greatly in its makeup from any U. S. newspaper. There is no front page as we know it. The first page is made up of classified ads and the masthead. Foreign news is positioned in the center of the paper.

Of several daily editions produced by the *Times,* one is marked exclusively for the Queen and other members of the Royal Family. This is printed on a high grade sheet and the press run is no more than 200 copies. Another edition, for shipment by air, is printed on a lightweight stock. Souvenir copies of the *Times,* in the form of 5 in. by 7 in. reductions of each page in the newspaper, are occasionally produced for presentation to visitors.

Another interesting production note in respect to the *Times* is that listings and tabular matter for the financial pages are set by Monotype.

Britons continue to support a number of newspapers. There are eight morning and three daily newspapers in London itself. Some of these have huge national circulations. The *Daily Mirror* leads the field with 4 million followed by the *Daily Express,* 3½ million; *Daily*

(Continued on Page 101)

Powderless Copper Etching 'Guarantees Engraver's Future'

By **PAUL J. CLARK**, *President, Seidel-Farris-Clark, Inc., Toledo, O.*

IT is no wonder that the original group at Photo Engravers Research Inc., never gave up until powderless copper etching became a fact. It is also easy to see why so many people in the Graphic Arts industry became enthused.

Powderless copper etching is a dream come true. It answers the desires of the photoengraver. For years he had to allow for lateral etching in his negatives; had to deepen his halftone to satisfy AAAA requirements; had to spend hours in color correcting, and many times had to throw dollars down the drain when that plate went haywire because of top failure.

A sheet of engravers' copper is to the photoengraver what a fine piece of marble is to a sculptor. The fine grained copper—with its superior etching qualities and its adaptability to tooling, its long wear on the press, its infinity to ink—gives the photoengraver a medium which when printed on paper makes the paper literally come alive.

Copper's Process Qualities

The adaptability of copper is evident in color process corrections when color must be added or taken away. In no other form of platemaking, be it offset, zinc or gravure, has the craftsman such flexible control of his work.

The loss of color in powderless copper etching is negligible. The depth in the halftone is greater than needed and the smooth-sided pyramid shaped dot is a boon to the electrotyper.

The angle of the side etch can be controlled by the amount of additive, the paddle speed and the temperature. In the beginning the etcher tried to attain greater and greater depths until he reached the point where the sides were so perpendicular that the electrotyper had difficulty releasing his mold. However, experience has shown that, like all highly controlled processes, the intelligent operator soon develops the knowledge to control every facet of his operation.

One hears so much about letterpress being converted to offset. In our plant we have had the gratifying experience of saving a very expensive color process job for a local printer. We did this with his color process offset screened positives. The positives were contacted back to negatives and were etched on copper with our powderless etch method. Thereby a mediocre offset result was changed to a brilliant letterpress rendition.

It is easy to be enthusiastic when one sees and realizes the potential of powderless copper etching. But up to this time it has been for halftones only and for flat etching line work. Now, however, we come to a significant step forward: Powderless deep-etching of line work.

Photo Engravers Research, Inc., has developed a new additive, which makes the deepening of line work a 20 min. operation. While it might be a bit too early to call this an unqualified success, it has reached the degree of effectiveness so that the additive can be sold commercially.

This illustration was printed from a powderless copper etched engraving made from an unretouched photograph. Full tonal range and photograhic beauty were achieved in the camera. No retouching was done on this subject because it is on copper and all detail could be accentuated. (Engraving made by Seidel-Farris-Clark, Inc., Toledo, O.)

The additive can be purchased from Phillip A. Hunt Co. as Add-O-Graph 13A, or from Chemco Photoproducts Co., Inc., as Kopr-plus 13A, and can only be sold to members of Photo Engravers Research, Inc.

Standards for this combination etch additive, set by the PER committee, specify that side etch in

(*Continued on Page* 108)

Twin Cities Photoengravers Technical Society members watch engraving of reticles on glass for an optical instrument in plant of Buckbee Mears Co., St. Paul.

TO KEEP PACE WITH ADVANCES IN GRAPHIC ARTS

Engravers Join Research

By FRED W. WENTZEL, *Technical Director, Intl. Photoengravers Union.*

PROBLEMS created by introduction of technological developments and their impact on the working force in all industries have been recognized generally by labor unions.

In particular, printing crafts unions have established technical departments, training and information services. This is usually in the form of cooperative programs with management associations, industries introducing new developments, and with research organizations.

Union members also have been encouraged to train themselves for handling new processes so they can use their skills to best advantage. This task has not been easy because of the obstacles which have been presented. In addition, members must be assured these programs are in their best interests; jurisdictional problms arise which must be analyzed, and budgets must be considered. The smaller the union, the more important each of these factors becomes.

IPEU Expands Facilities

Photo mechanical platemaking always has been considered a highly skilled craft. The International Photoengravers Union is a relatively small organization, but from its beginning it has disseminated technical information regarding new and revised processes and methods in many ways. This has been and is now being done to promote better craftsmanship and advancement of the industry.

In recent years the International Photoengravers Union has expanded its facilities considerably at the International level. Among these activities was the establishmnt of a committee on apprentice training and technical societies.

The executive council of the IPEU has also cooperated and met with various management associations. The object has been to analyze new processes and their impact upon the Graphic Arts industry and the working force. Ways and means were studied for introduction of the new processes. Included was the activity for retraining or relocation of personnel.

Technical Director Fred Wentzel and Ariel Cotton, chairman of apprentice training and technical societies committee, discuss exhibit at Louisville, Ky., 1960 convention.

In the *American Photoengraver*, official journal of the IPEU, a special section is set aside each month to bring to members technical subjects of timely interest. New processes and techniques are discussed and current literature is reviewed.

The Union Joins Research

A year ago, announcement was made that the IPEU had contributed $10,000 to Photoengravers Research, Inc. Along with the announcement it was stated the Union's president, Wilfrid T. Connell, would become a member of the board of directors. Also it was stated the Union's technical director would serve on the research planning committee. This direct participation with employers in a research effort illustrates the progressive attitude of a labor organization with regard to industry progress and job security.

While the recommendation to join PER came from IPEU's executive council, it should be remembered that the final decision was made at the 1959 convention by the delegates who represented the membership directly. Perhaps even more significant than the money is the fact that

the Union takes an active interest in the policies and projects of PER. In this way a direct link is formed between the research laboratory introducing new processes and the men in the plants who are expected to work with them.

Although one year is not much time in terms of research and development, the experience so far has been good. Thus at the Union's 1960 convention it was decided to renew the financial contribution and continue active participation.

During the past year the PER laboratory in Park Forest, Ill., was established under the direction of Dr. Marvin Rogers, executive director of PER, and Paul Borth, PER's director of research. The main work is still going on in powderless etching of copper, a project which shows satisfactory progress to date.

Some of the aims of PER include information and educational services. Plans will be made for seminars, lectures and other suitable programs directed to plant personnel in various parts of the country. Audio-visual material and literature will also be made available.

These things will surely take time and effort. However, a start has been made and there is every reason to be optimistic about future results.

At the Local Level

This activity on the part of the International Union has made an impression upon all locals and on individual members. The result is a growing desire for technical information and educational programs. While enthusiasm is not high in all cases, the trend exists and is bound to grow.

Also at the local level there are the technical societies. In 1945 the first society was organized in Philadelphia. Similar societies were started in subsequent years. Now there are between 15 and 20 in existence in all parts of the U. S. and Canada.

While this still may be a comparatively small number, it shows that the members are interested in progress. They want to be well informed and to participate in the advance of their industry. Many men voluntarily devote time and effort in arranging programs.

In at least one case a technical society has formed research teams which take on projects in the various branches of photoengraving. These teams study processes, evaluate new materials impartially and develop better techniques. They do this on their own time in the plants and with the consent of their employers.

In many cases, where no organized technical groups exist, or where membership is too small to support one, special meetings are called. At these meetings the International Union's technical director discusses new developments and industry problems. The same procedure is followed at regional conferences where a number of locals are represented by delegates.

Local unions have taken the initiative in improving apprentice training. Some outstanding programs have been developed.

Retraining Journeymen

Recently there has been talk of retraining journeymen to help them acquire the knowledge and experience necessary to work with new processes or equipment in an effort to avoid technological unemployment. No extensive programs are yet formulated but members have been advised and assisted on an individual basis. Definitely this will become a project for future consideration. Technical societies and committees, already functioning successfully in all parts of the country, will provide an excellent contact and starting point for future projects. These will be on a more expanded scale, such as are being thought about at PER in the form of seminars or lectures.

Many of the best technicians sought after and employed by the supply industries are practical photoengravers who have retained their Union memberships. Others have remained in photoengraving plants where they continue in many capacities to improve and develop new processes and techniques.

On the other hand, the capabilities of the men in the plants have not been utilized to the fullest extent. Greater use could be made of the individual's skill and experience in an atmosphere which creates enthusiasm, provides incentives and recognizes outstanding accomplishment.

The IPEU has made a start in this direction by joining a research effort, through technical societies, training programs and the dissemination of technical information. If management and the supply industries will continue to cooperate in this effort, and will do so on an expanded scale, the future of the photoengraving industry should be assured.

GONE ARE THE DAYS OF ALCHEMY!

(By Fred W. Wentzel)

The picture of the photoengraver working like an alchemist behind locked doors, jealously guarding his secret formulas and tricks of the trade has faded from the scene. The craftsman of the past relied mostly upon the skill of his hands and artistic ability, both acquired through years of experience.

Modern processes and techniques have effected some changes. Individual interpretation and handwork have given way to precision controls and automatic equipment. Skills are now along different lines—the craftsman has become a technician.

In the role of technician, the men in the plants have made important contributions toward practical adaptation and development of new processes. Many serious problems have been solved by them, frequently under pressure of production and with inadequate or strange equipment. They had to rely on their own skill, experience and good judgment to work things out by trial and error. In a sense, it is a rebirth of photoengraving to meet the needs of our technological age.

FTA Sponsors Flexo Contest

The Flexographic Technical Assn. is sponsoring the second annual awards competition for flexographic printing. All work produced by flexography during 1960 is eligible for the contest. Classifications include: Foil, film, paper, paperboard, solid fibre and corrugated. Awards will be presented during the association's third annual meeting and technical forum, Hotel Roosevelt, New York, Feb. 7, 1961. Awards committee chairman is Frank H. Longenecker.

Changes are coming in printing of weekly newspapers; interest swings to web offset.

WEB offset printed newspapers are a relatively new idea to weekly and small daily publishers. A few years ago, many publishers would have scoffed at the idea of converting from letterpress to offset. Today, publishers are willing to take a longer look at what the process offers, and some embrace it wholeheartedly.

It was revealed last month that the weekly newspaper industry is in a state of change. Centralized printing plants are beginning to be formed with most of these plants installing high speed web offset press equipment. Mergers are becoming more and more frequent as operating costs for single weekly publishers cut profits. A high interest in offset possibilities to reduce costs while improving quality was indicated.

Transformation of the

WEEKLY NEWSPAPER

Publishers' Views on Web Offset

By RICHARD L. PINKERTON
SECOND OF TWO PARTS

Basis for the two articles is a statistical analysis of a mail questionaire sent to 2300 publishers inquiring as to future plans. A return of 594 resulted in a 90% reliability of the findings which are partially presented here.

How publishers feel about advantages and disadvantages of web offset is examined in this concluding part. The use of the offset process in printing small dailies and a possible application to large metropoltian papers is also discussed.

Table I shows the advantages which were credited to web offset production procedures. With the exception of increased press speed, most of the factors could apply to sheetfed offset. Advantages not mentioned in the table for web offset are the ability to do inline folding and simultaneous perfecting.

The major advantage which publishers believe web offset offers is increased speed. Based upon normal running speeds, a web offset press is about 3.2 times faster than webfed flatbed letterpress; 5.8 times faster than sheetfed offset, and 11.4 times faster than sheetfed letterpress.

The second most important advantage of web offset was improved printing quality. There is a growing awareness among editors and publishers of weeklies that newspapers can and should be examples of fine screen printing with expanded pictorial and color layouts. Many feel that web offset is the answer. It is interesting to note that quality advantages outranked cost saving advantages allowed by the offset process.

The most common method of copy composition for weekly newspapers produced by offset is the use of machines similar to typewriters. They differ from typewriters, however, because they not only produce justified lines, but also are equipped with type faces which are difficult to distinguish from hot metal composition. Cold composition of this type produces copy ready for camera and requires no intermediate steps except for pasteup. Important savings are claimed because of reduced labor costs.

It is equally important to remember that web offset presses are not limited to cold composition. Galley proofs or repro proofs from electrotypes, stereotypes, zinc etchings or type metal make excellent copy for newspapers printed by lithography.

Disadvantages which web offset is felt to have are listed in Table II. The major disadvantages in order are: Lack of skilled labor, high press cost, insufficient printing volume, and cost of changeover from letterpress to offset. If all cost factors are added together, the major disadvantage becomes one of economics.

Two items demand comment in this table. One is inferior quality and the other is slow press speed. Nine percent of publishers commenting on disadvantages mentioned inferior quality and 5.67% indicated they believed that slowness was a drawback of web offset presses.

Several conclusions can be drawn, but the most logical is that many publishers have not investigated or do not fully understand the principles of web offset. This conclusion is borne out through field interviews with publishers.

Under skilled hands, web offset can produce top quality results as shown by production runs made by Rochester Institute of Technology on its web offset press. Many weeklies now being produced by multiple publishers with web offset presses obtain quality results which belie any charge of inferior quality.

The misunderstanding of web offset possibilities can also apply to the disadvantage labelled slowness. There may be, however, another explanation. Perhaps the individuals who make up the 5.67% in Table II are those who are now operating rotary web letterpress equipment, which is primarily designed for metropolitan dailies. To anyone operating this type of equipment, web offset would be considered slower.

An inherent disadvantage of web offset is the fixed printing cutoff, which is the distance around the cylinder. The cutoff cannot be changed and when various types of impositions are designed, the layout must be properly designed to prevent excessive paper waste. For those publishers printing miscellaneous products as well as newspapers, the fixed cutoff becomes even more important.

High Printing Volume Needed

All web presses are high consumption machines, and web offset is no exception. The typical weekly newspaper web offset press prints a web simultaneously on both sides and folds at approximately 400 f.p.m. The following statistics indicates the volume which is necessary to keep a web press operating:

A two unit 22½ in. by 36 in. blanket to blanket web offset press can print 96,000 one color 16 in. by 22 in. pages per hr. This is based upon two pages per printing unit which is perfected, the press operating at 12,000 i.p.h., or 12,000 x eight pages. A three unit press of this size can print 144,000 pages per hr. and a four unit press can print 192,000 pages per hr.

If the initial cost of web offset presses appears to be high, it should be remembered that production capabilities are likely to more than justify the cost.

Based on field research and trade directories, it is estimated that approximately 45 web offset presses are now printing nearly 220 weekly newspapers; and these figures will rapidly increase in the next five years. Newspapers now being printed by sheetfed offset in the weekly field probably number 350. Thus the total number of newspapers now being printed by lithography is likely to be more than 570.

The typical weekly publisher now using or who will use web offset will publish at least three weeklies. There will be an increasing amount of centralized web offset printing of several weeklies in one printing plant to accommodate several publishers in the surrounding area. Mergers should increase giving one publisher control over several weeklies which will also increase use of web offset for newspapers. Expanding suburban areas will create additional weeklies. Publishers with web equipment may expand into printing other products such as shoppers which will grow in demand as the shopping center fever continues to spread.

Dailies by Web Offset

Although no statistical surveys were made on daily newspapers, a few comments on papers of this type can be made. The research conducted by Rochester Institute of Technology and the Hi-Fi Color program of Young & Rubicam advertising agency can be looked at as a prophecy.

RIT's Graphic Arts Research Dept. has a standard four unit 22 ¾ in. by 35 in. blanket to blanket web offset press which is used to develop production techniques for three color printing on standard 32 lb. newsprint. The 1958 and 1959 *Penrose Annual* contain excellent examples of RIT's work on color signatures for dailies. The RIT laboratory has also produced over 200,000 web offset color supplements for insertion in a 1958 issue of the Dallas *Times-Herald*.

Young & Rubicam, a New York City advertising agency, has cooperated with several large web offset printers in supplying preprinted color pages for big city dailies, such as the New York *Herald Tribune*.

TABLE I—ADVANTAGES OF WEB OFFSET PRINTING PRESSES AS REPORTED BY 108 PUBLISHERS OF WEEKLY NEWSPAPERS*

Type of advantage	No. of Mentions	Percent
Increased press speed over other types of presses	57	26.75
Improved printing quality	39	18.31
Reduced production cost	24	11.27
Versatility and general advantages of cold composition	18	8.45
Allows the use of more and higher quality pictures	16	7.51
Reduced composition cost	13	6.10
Increased use of color	9	4.23
Easier to operate	9	4.23
Miscellaneous	28	13.15
Totals	213	100.00%

*The total of 108 is the number of publishers replying to this question. The other table in this article has a different response, since all publishers did not answer all questions in the study.

TABLE II—DISADVANTAGES OF WEB OFFSET PRINTING PRESSES AS REPORTED BY 130 PUBLISHERS OF WEEKLY NEWSPAPERS

Type of disadvantage	No. of Mentions	Percent
Lack of skilled labor	30	15.46
High cost of web offset presses	25	12.89
Insufficient printing volume	25	12.89
Total cost of changeover from letterpress to offset	24	12.37
Inferior quality	18	9.28
Slow press speed	11	5.67
High labor and material cost	11	5.67
Offset process too difficult	8	4.12
Miscellaneous	42	21.65
Totals	192	100.00%

These one sheet inserts were printed in a wallpaper or continuous design in process color, rewound and then sent to dailies for insertion into a regular edition.

Web offset will probably make its first impact in metropolitan daily newspapers via the Sunday supplement. With the exception of the few major metropolitan newspapers with gravure presses, daily newspapers purchase Sunday magazines from a syndicated central source. As a result, these magazines cannot reflect local news or advertising. Central web offset plants could produce high quality local Sunday supplements for several neighboring city dailies. The central plants could be jointly owned by several dailies or owned by one daily on a contract printing basis with other dailies. The major advantage of either plan would be high quality local Sunday color supplements earning local and national revenues. A few large city dailies are doing this with their gravure departments.

Newly developed electronic inserting equipment permits exact matching of the regular newspaper press cutoff with the cutoff of preprinted color webs, thus eliminating need for the continuous design. It is also

(*Continued on page* 110)

Improvements in Duplicate Plates

Recent improvements in duplicate printing plates were outlined by Floyd C. Larson, secretary-treasurer of the International Assn. of Electrotypers & Stereotypers, in a talk before the Atlanta Craftsmen's convention last August.

"One of the greatest expanding printing markets has been that of packaging," Larson said. "Letterpress and duplicate plates lead this industry by a wide margin. In a recent nation-wide survey of carton printing equipment units, there were 3410 letterpress units to 220 offset, 75 rotogravure and 120 flexographic units."

The speaker asserted that "phenomenal" is the only word which adequately describes the recent growth of flexographic (rubber plate) printing. The duplicate plate growth is in the area of carton and packaging, paperback books and business forms printing.

Plastic Backed Plates

Larson reported successful development of plastic backed electrotypes, most noteworthy of which have been the Electroplastic, Bista and Color Line plates. The Electroplastic plate is fabricated with a thinner copper shell and a poured plastic backing shaved to proper thickness. The plate weighs about one-fifth as much as an all-metal plate, he said. Up to two million impressions have been run from them in publication work.

"Most successful in the field of plastic-backed duplicate plates," continued Larson, "are those which are reinforced with a perforated aluminum sheet. Both of these plates have had extensive field testing in the past two years and are now accepted by the large magazine printing plants."

Also pointed out by the speaker was the equally great progress made in stereotyping methods and products. One of these is the elimination of hand mat packing for newspaper plates. Another sign of progress is the control of stereo mat shrinkage for ROP color newspaper reproduction. The cutting of production time in stereotyping is valuable to the split second timing in the

(*Continued on Page 98*)

Linofilm system at Davenport (Ia.) *Times* and *Democrat*. Two keyboard units are used to punch tape which operates photographic unit at right. Punched tapes hang on pegboard against wall.

What to Expect in Starting Newspaper Photocomposition

By W. N. KUENEMAN, *Midwest Editor*, PRINTING PRODUCTION.

IF you are going into photocomposition don't expect the equipment to be delivered one day and be in production the next." That was the advice of David K. Gottlieb to the Iowa Daily Newspaper Mechanical Conference in Des Moines, Ia., last May. He reviewed the cold type experience of the Davenport (Ia.) *Times* and *Democrat*, of which he is business manager.

All of the hot metal type ad frames have been removed from the composing room. All ad display and text is set by the Linofilm system. Gottlieb said: "Without strain or pain, the Davenport system produced over 40 pages for one Wednesday in May, 60 pages for Thursday, more than 40 for Friday and I believe we went past 100 today (Sunday), all in the same week in May. I am talking of printed pages in each of seven editions produced daily in Davenport—not the number of advertising pages. Of course, you are aware of the usual percentages of advertising relative to news.

"Before moving into cold type one must know that the engravers have mastered the fast etch process. While our engravers were learning to put the fast etch process into operation, two of our machine operators set up a small darkroom. They assembled a pasteup table by robbing the advertising layout and art departments. They rented a Varityper from an office supply firm and then practiced the elementary functions of pasteup by putting together live ads consisting of 14 to 100 lines from which experience was gained.

Metal Pasteup Shelved

"These pasteups were sent to the engraving department for actual processing and were used in our newspapers," he continued. "It was then we discussed the feasibility of metal pasteup. We shelved the idea. While there were nominal savings in metal, there was a time waste. However, some newspapers have successfully experimented with metal pasteup, such as in Louisville, where the system is in operation."

Before actual production of ad composition commenced, the fast etching method was installed in the

photoengraving department. Gottlieb related that "the main difficulties encountered and objectives achieved during the preparatory period were darkroom operation and pasteup procedures. These were mastered, but only after experimentation. The point is that we had the time to experiment. We did not denude ourselves of hot metal facilities when we started into photocomposition. We always knew that if we had to, we could do it the old way.

"In pasteup we thought that the correct procedure to secure proper alignment would be through a marked grid in picas on a lighted glass plate and with the layout paper on top of the glass plate.

A section of dispatch, ad layout and photocomposition pasteup department of Davenport (Ia.) *Times* and *Democrat*. Sheets ruled in light blue lines are used to make ad pasteups.

Prefer Paper Pasteup

"We soon discarded this method in favor of pre-ruled (in light blue) layout sheets. These are used not only by the advertising department and layout section, but as the only guide for lineup in the actual pasting. Light blue ruling is used because the engraving camera will not pick up that color.

"Markup had to be far more accurate and every detail carefully observed. The markup men had to train themselves anew for the new type faces.

"I might add here that our basic ad dispatch system remains intact, except envelopes are substituted for the aluminum trays. All other features of the dispatch system are the same, so that the advantages of this system are now retained.

Preliminary Instruction

"Prior to installation of the Linofilm system, we sent two men to the factory for primary instruction. One was an operator, the other a machinist. The operator had been practicing on a typewriter keyboard. From his experience we can conclude a normal machine operator usually has no difficulty swinging from a typesetting keyboard to a typewriter keyboard layout. But he must practice to gain speed. The machinist had previous experience dabbling with radio and television sets and was at least familiar with the terms and equipment of the Linofilm system. He spent four weeks at the factory and was trained for maintenance when he returned.

"With the establishment of the Linofilm system, Davenport now produces 100% of the advertising composition in the cold metal department for the *Morning Democrat*, the *Evening Times*, and the *Sunday Times-Democrat*.

Accurate Copy Markup

"Accurate ad copy markup is required," he continued, "but the flexibility of 18 grids at the operator's fingertips combined with the potential of the composer equipment reduces time. The operator can change a grid in seconds. If something special is wanted, we have it. A font especially for one advertiser is an example.

A great advantage in photocomposition is the production of copy blocks. In pasteup this advantage is readily retained by cutting down actual pasteup time.

"This question is always asked us: What about the cost? Are savings possible and prevalent? I can state they are. If you decide to make an analysis be sure to include the maintenance costs of your present hot metal machines—replacement of matrices and parts and the depreciation factors.

"Will you have similar problems in starting?" Gottlieb asked the audience. Then he answered his own question by stating: "Definitely not. There are now enough newspapers with experience who will assist you in starting properly and by eliminating the trials, tribulations and errors we went through. The best example is that when we commenced there were five or six other newspapers in the country trying out cold type operation. Today there are nearly 100—and the number is increasing."

In conclusion, Gottlieb said: "Productivity will increase. Your composing room personnel will be given a change in pattern and better morale will develop. It results in better advertisements and better advertisers—they have so much more selection and freedom.

"At Davenport we feel the least we can do for our subscribers and advertisers is to give them both a better looking newspaper, and we believe photocomposition will do the job."

RIT Flexographic Course To Begin in 1961-62 Term

A full-scale program of flexographic instruction will be offered by the School of Printing, Rochester Institute of Technology, beginning in the academic year, 1961-62.

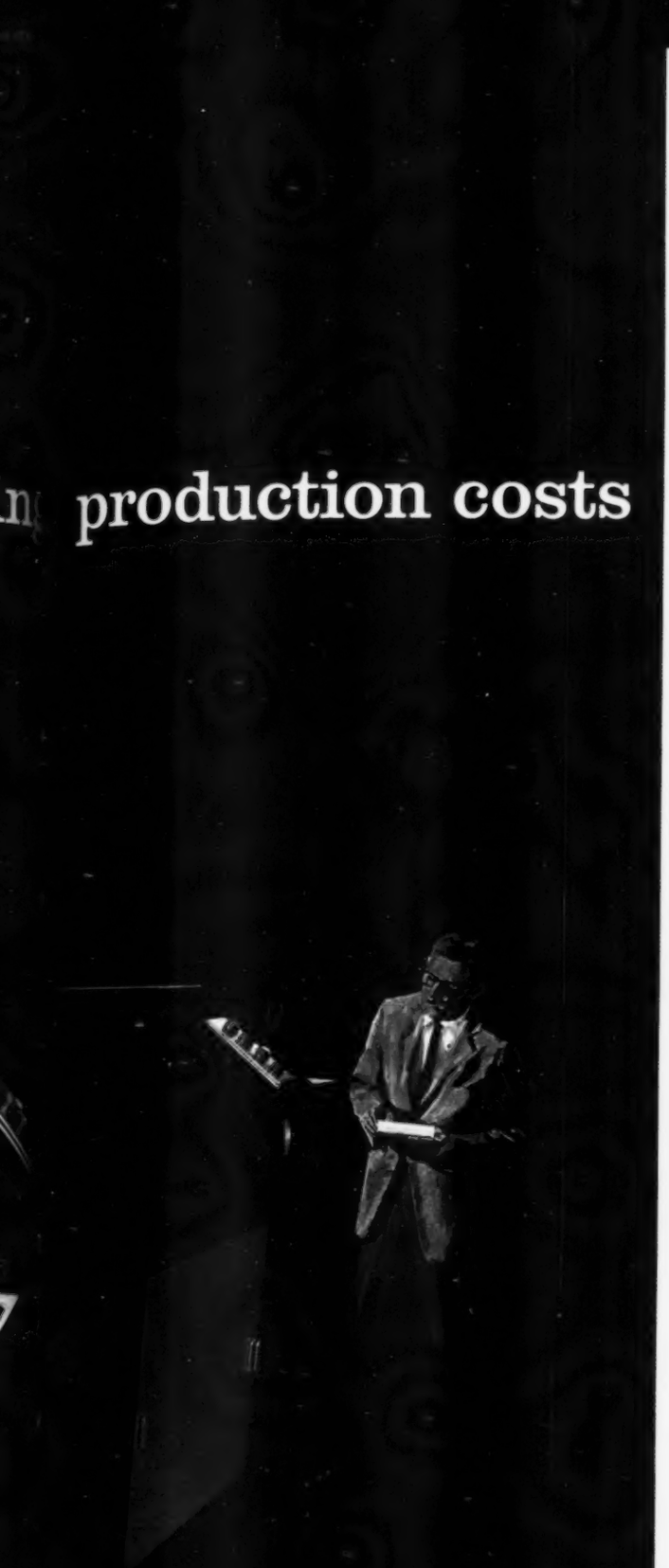
The curriculum addition was announced by Byron G. Culver, head of the School of Printing, and Julian Ross, executive secretary, Flexographic Technical Assn. According to the announcement, FTA has worked closely with RIT in preparation of a syllabus and in obtaining the necessary material and equipment for the course.

Reportedly, adoption of the flexographic course will make RIT the first major school of printing to offer a complete course in flexography, along with letterpress and offset. Companies wishing to sponsor flexographic courses should contact Culver.

For More Information Circle 72 on Reader Service Card→

THIS MAJOR BREAK-THROUGH

can stop the spiral of increasin p

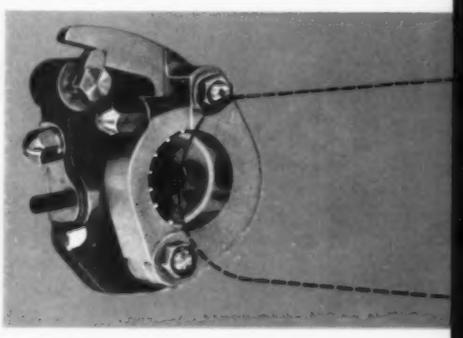


GOSS HEADLINER MARK II

Almost any superlative could properly describe this all-new press, but your interest isn't built on boasts—but on *benefits!*

Here are a few: New *faster color change*—faster than you can lead a web. New *bonus space* for the pressman. *70,000 p.p.h.* now possible. New *balanced drive.* New *centralized controls.* Many more major improvements and refinements are incorporated in the new Headliner Mark II*. All add up to exclusive economies for easier, faster operation . . . increased production at lower operating costs.

We'll be proud to tell you more about the new Headliner Mark II and discuss its features in relation to your operation. You may also be interested in our many recent improvements in the Headliner Mark I, still preferred by many publishers.



New ink feeding method, Goss patented, utilizes continuous feed and the knurled Micrometric self-cleaning ink feed roller shown above—produces a *finer pattern ink flow.* The Goss Continuous Ink Feed System provides a flow of ink in direct ratio to press speed. There's no pulsation, surging or repetition of type and cut patterns. (Photo at right) New patented *semi-automatic roller sockets* for controlling accurate roller settings . . . easily unlocked, adjusted and reset automatically to a predetermined flat.

3 out of 4 American daily newspapers are printed on Goss presses

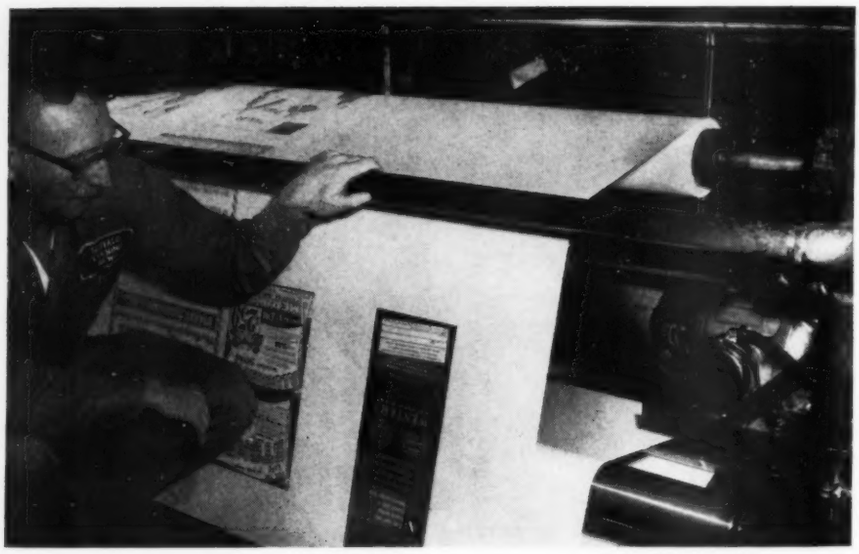
GOSS

THE GOSS COMPANY

CHICAGO 50, ILLINOIS

Specialists in newspaper, magazine and roto presses

A DIVISION OF MIEHLE-GOSS-DEXTER, INC.
The leader in graphic arts . . . engineering, service and manufacturing . . . industry-wide and world-wide



ROP color press makeready at Buffalo *News* is done simultaneously but separately from black makeready. Press Foreman Chet Williams examines color proof. Read story for the details.

Color Makeready Time Saver

By **WILLIAM E. KEIGHTLEY,** *Mechanical Supt., Buffalo* Evening News

WHEN the Buffalo *Evening News* first started printing ROP color in 1958, our largest controllable cost was the expense of press makeready. Included in press makeready waste were the spoil copies printed at the start of the first edition before the color ink was set.

The two major expenses of ROP color press makeready were the cost of the time required and the cost of the printed waste.

During the time the color cylinders were being webbed, plated, and registered, makeready work on the black portion of the press was delayed. Ink controls were not set with the moving web owing to the difficulty of running a single web into the folder, also to avoid delaying the black makeready. Color ink controls were set when the press started on production thereby creating a large number of poorly inked spoil copies.

Color and Black Units Separated

The cost saving solution seemed to lie in separating the color units from the rest of the press during makeready so that color makeready and black makeready could be done independently, but at the same time. Ways had to be found to drive and control the color units independently, and to rewind the printed color web without taking it to the press folder.

Through the joint efforts of Chet Williams, pressroom foreman, who initiated the project; Vince DeSio, plant engineer, who worked out the electrical apparatus, and Charles Bradfield, machinist foreman, who set up the mechanical equipment, the objectives were accomplished.

Circuits were provided in the press controller to operate the unit drive motors on slow speed and to control them from separate push-button stations located at the color units.

A rewind device was installed in the superstructure over each color unit. The rewind device was provided with chucks for insertion of a core on which to rewind the printed web. One chuck is rotated by a torque motor to wind up the web when the units are moved and which keeps constant tension on the web, whether it is moving or stopped.

The picture shows Williams inspecting a color web and also shown in the background is the rewinding device.

Our color makeready is done simultaneously with the black makeready. This procedure effects a substantial saving in time. The plates are mounted on the cylinders and registered; then the color controls are set while the units are running and the web is being rewound. Close inspection of the result is possible during all stages of the operation and the color is made acceptable entirely during the makeready period. The only newsprint wasted is the one color web wound around the rewinding core.

After color makeready is completed, the web is torn at the rewinder and led into the folder and the color units are connected mechanically and electrically with the rest of the press.

LTF Seeks 1000 Member Goal

During the September-October period, the Lithographic Technical Foundation is making every effort to achieve a 1000 company membership goal.

William H. Webber, executive secretary, reports that during the past 12 months, LTF has gained a total of 129 annual and 18 sustaining members, to bring total membership well over the 900 company member mark.

Webber said that LTF has been successful because of collaboration by both printing plant and supplier companies who have joined forces financially and technically for improvement of the lithographic industry.

Besides the memberships in the U.S. and Canada, LTF has members in foreign countries. There are 21 members in Australia, 30 in England, 8 in Japan, 5 in Switzerland and others in most countries of the free world.

Plans Annual Color Seminar

The second annual seminar on color control for the Graphic Industries will be held at Rochester Institute of Technology, Rochester, N. Y., Dec. 14-16. Topics to be discussed include: fundamentals of color, color specification, illumination, color vision, inspection and process control.

Technical adviser of the seminar is F. L. Wurzburg, Printing Ink Div., Interchemical Corp., and Warren Rhodes, RIT, will coordinate the program.

Cambridge University Press of England developed this flexible plate for book printing. Plate has plastic printing surface bonded to supporting base of rubber; may be used on rotary or flatbed presses.

A prepositioned form containing the new flexible plates is mounted on the press cylinder at the Cambridge University Press. Plates are attached to a thin metal sheet which is wrapped around cylinder.

New British Wrap-around Plate

A COMBINATION rubber and plastic flexible stereo plate for use on sheetfed rotary presses has been developed by Cambridge University Press, London, England.

According to officials of Cambridge Press, the plate was developed in order to make rotary letterpress operation practical for short runs as well as long runs. The plate is said to yield quality reproduction of type, line illustrations and fine screen halftones. Reportedly, the wrap-around plate can be produced inexpensively on equipment already available in the industry.

Nature of the Plate

The flexible plate consists of a plastic printing surface bonded to a resilient rubber base. The plastic top gives a durable working surface, while the rubber base provides a cushioning effect for an even impression. Stretching and distortion are prevented by a layer of fabric.

Because of the combination of a hard printing surface and resilient base, little makeready is required to prepare the plate. Simple overlays are employed to deal with solids or heavy display lines which require more pressure. Minor attention is necessary to correct slight deficiencies in plate finishing.

It is stated that the material used for the plate possesses excellent ink transfer properties. As no heavy pressure is required, there is little halo effect. Although runs have not exceeded 100,000, Cambridge reports no discernible sign of wear between the first and last prints off the press.

Preparation of Rotary Form

In preparing the rotary form for printing, a double sided adhesive is attached to the back of the printing plate. A thin metal sheet is wrapped around the rotary press plate cylinder.

The plates are placed on the thin sheet; and then, they are registered by means of a string frame. Once fixed, the plates and mounting sheet may be stored on a set of hooks. The printing surface of the plates is not easily damaged.

For convenience in book work, the rotary form is made upon two twin metal sheets, each holding 16 pages. The sheets are attached to the cylinder by a set of locking bars. The metal sheets are drawn around the cylinder and fixed with similar bars at the tail. Separate adjustment in each direction is provided for final register.

Give
The UNITED Way

European Apprentices Seek Positions in U. S. Plants

Printers willing to employ European apprentices in their plants for specified periods of time are being sought by the International Exchange Committee of the International Craftsmen's Assn.

Lee Augustine, president, Printing Machinery Co., committee chairman, states that the committee has received requests from overseas printers for an apprentice exchange program. A similar exchange program has been practiced in Europe.

According to Augustine, the apprentices from abroad would pay their transportation costs to the U. S. and also their living expenses. The participating U. S. company would have the obligation of paying for the services of the apprentice.

Interested printers should contact: Lee Augustine, chairman, International Exchange Committee, International Assn. of Printing House Craftsmen, P.O. Box 1422, Cincinnati 1, O.

R&E Council Changes Address

It has been announced that the Research & Engineering Council has moved its headquarters to 1411 K St., N. W., Washington 5, D. C. The organization's new telephone number is EXecutive 3-3444.

Aside from running and annual inventory controls, one of the most important things is to use the oldest stored paper first.

FROM time to time we have been asked how McCall Corporation controls its inventory of roll and skid paper. This includes operations from the time the stock is received by railroad car up to and including time of consumption.

At the outset it should be mentioned that the paper controls system used at McCall's has proved to be satisfactory over a several year period. It must be mentioned also that any system is only as effective as the accuracy of the figures and information furnished in the reports.

In all plant material handling systems, some degree of flexibility must be provided. This is true with forecasts made several months ahead of anticipated paper requirements.

How McCall's Keeps

CONTROL OF PAPER

In inventory and in-plant handling

By ANDREW C. WILSON
Materials Handling
McCall Corporation, Dayton, O.

Paper Requirement Forecasts

Each January and July the material handling section is furnished a forecast of the size of the publications to be printed in each of the following months. The forecasts are as accurate as can be estimated that far in advance.

From time to time the number of pages in a publication varies from the forecast. For this reason we keep in inventory a five week supply of paper in the basic roll size.

The basic roll size is for printing a 20 page or 40 page signature. When a 4, 8, 12 or 16 page signature is required we have in inventory one issue. We then reorder this particular size roll paper on a replacement basis. In this way, as the stock for one issue is used we replace it during the month it is receive during the following month.

As each car of paper is shipped, the mill mails to us a manifest or roll shipment specifications sheet (1 in illustration). The manifest carries railroad car number, individual roll number and weight, size, basis weight, etc.

The manifest blank, carrying shipment information, arrives in our plant several days prior to the carload of paper. This gives us sufficient time to post on 5 in. by 8 in. card index file cards (2 in illustration). The cards in the index file furnish information about kind of paper, manufacturing mill, size, basis weight, shipment date, number of rolls, total net weight of shipment and date unloaded from car into the warehouse. When an entry is made on the card denoting the unloading date, the carload is considered in our inventory.

As each skid or roll of paper is unloaded from the railroad car it is inspected thoroughly for transit damage. An unloading report (3 in illustration) is made for each car. The report is forwarded to the material control office. On it are listed any transit damage and the location of the paper stored in the warehouse. We have very little transit damage on skid paper, but claims to the railroads about roll paper damage occur with greater frequency.

At the time of unloading, each roll is checked against the manifest. When in agreement with the manifest a receiving report (4 in illustration) is completed and forwarded to McCall's accounting department for payment of invoice. Further use of the manifest is made for inventory purposes.

As each roll of paper is unloaded from the railroad car a roll record card (5 in illustration) is inserted in the core of each roll. It accompanies each roll until the roll is mounted on the press reel. After each roll has been consumed on the press, the roll report cards are attached to and accompany the pressroom daily report (6 in illustration). This assembled material sent to the material control office functions as a double check on the information noted by the press crew on the pressroom daily report.

Pressroom Daily Report

Further comment regarding utility of the pressroom daily report card (6) is that the card will show publication worked on, paper mill, basis weight, roll number, weight of roll and impressions obtained from each roll used. An employee in the material control office checks each roll consumed against the manifest (1), marking out the roll number on the manifest as it is

Various forms used in McCall Corporation's publication printing plant for handling paper stock from railroad car to printing press: (1) Manifest or carload specifications sheet; (2) This 5 in. by 8 in. index file card contains details about a shipment from a particular mill; (3) Damage to each roll or skid is noted on this unloading report form and is included with report for adjustment; (4) When unloading rolls or skids from car, each item is checked against manifest and when in agreement, the receiving report form is filled out and sent to accounting department for payment of invoice; (5) A roll record card is attached to each roll core and after the roll has been consumed on the press, it accompanies the daily pressroom report; (6) Once each year an outside auditing firm supervises a physical plant paper inventory; (7) The information is tabulated on inventory form.

shown as having been used in the pressroom.

Running Inventory

After checking off all the rolls consumed during the previous 24 hr. period, material control counts the rolls that have not been used to obtain the amount of paper remaining in inventory. Expressing it in another way, this provides the material handling department with a running inventory.

The manifests (1) are accumulated in a manila folder. They are kept separated by size of roll and paper mill. At the end of a press run for the publication, the roll numbers on the manifest are tabulated; the balance on hand and the consumption for an issue of the publication is determined. This is done by taking the balance at the start of the issue, plus pounds received during the month, minus the balance at the end of the month, which reveals the total pounds used for that month.

The number of paper rolls remaining on the manifest has now been determined. As a double check, an actual physical count of rolls remaining in the warehouse is made at this time. When the two totals are in agreement, it is easy to see that the roll consumption for the month is correct.

Uses Oldest Paper First

It is important the oldest paper in storage be used in succession according to receipt. The reasons need not be mentioned here.

As the material control section receives notice of shipment (1 in illustration) from the mill of the first car load of paper in any new order, a lot number is assigned to the shipment. This lot number covers all paper to be received on that specific order. For example, all paper shown as having been received on the file index card (2 in illustration) was assigned the lot number 100; as the rolls are unloaded from the railroad car the lot number is written on each roll prior to placing in storage.

Paper is ordered daily out of the warehouse by lot number. The oldest lot number is used first. A record of lot numbers issued is maintained. As each order of paper is assigned a lot number, this information is noted on the card (2) in the column under the box headed *Consumption*. All paper in a given lot number is placed in the same storage area and for the most part is readily ac-

(*Continued on Page* 98)

The PATRA test bench is used for checking raw materials in the plant.

Here's In-plant Testing Bench For Material Quality Control

THE Printing, Packaging and Allied Trades Research Assn., of Leatherhead, Surrey, England, has developed a special model of the PATRA test bench. The bench is now available to association member printing plants and to nonmember plants located in countries other than the United Kingdom.

The equipment furnished with the bench itself permits making routine tests of raw materials such as paper and ink to determine whether or not they comply with specifications. An individual gauge is used for checking the plate thickness and accuracy of type height. The equipped bench is not claimed to be the complete answer to quality control in the printing plant. It is a new tool to help the printer make a start in introducing control techniques in daily work, as well as to aid production efficiency generally.

The equipment may also be used to diagnose troubles occurring in production runs. Tests can be made on either paper or the printed job itself in an attempt to find the cause of imperfect printing as the result of combined paper and ink. Also, it can be determined whether the trouble may be traceable to warehouse or pressroom atmospheric conditions.

Sponsor states that the person to be put in charge of the bench and testing equipment doesn't need to be a trained scientist or chemist. But the operator should have at least a working knowledge of physics and chemistry.

The bench itself is fabricated from wood and steel. The superstructure is constructed of wood and is finished with gray enamel to match the metal underbench units. The blockwood top is covered with gray Formica. The three lower storage units are constructed of steel. Overall measurements of the Formica worktop are 8 ft. 6 in. wide by 2 ft. 8 in. deep by 3 ft. high.

General features of the bench include a sink with fold down water valve at the left end. At the right there is an illuminated opalescent glass photographic transparency viewer. Also at the right but in elevated position there is a platform with $\frac{3}{8}$ in. asbestos covering to support the electric test oven.

At extreme right edge of the worktop is a hand guillotine for trimming paper samples. At the left of the oven is a balance scale for heating paper samples. There are other compartments in the top structure for storage of glassware used in making tests, and reference material.

Some of the nearly 100 other equipment and instrument items furnished with the test bench are: Surface oil absorption and paper equilibrium testers, 20× binocular illuminating magnifier, stopclock, paper micrometer, type and plate gauge, hand printing machine, 7-day recording thermohygrograph, whirling hygrometer, comparator, bromocresol green and universal indicators and disks, electric water bath and Dennison wax testing set.

Included among other items furnished are an ink roller and slab.

Full information may be obtained from Printing, Packaging and Allied Trades Research Assn., Patra House, Randalls Road, Leatherhead, Surrey, England.

At left the technician is working with testing solution in sink equipped with fold-down water valve and spout. In center picture, the operator has covered the sink and is carrying out one of the main ink tests which consists of a technique for assessing oxidation drying. At right, the operator is using the PATRA surface oil tester. This is one of the standard printing paper tests.

Describes Contract Research—The first in a series of brochures describing procedures of contract research operations has been published by Battelle Memorial Institute, Columbus, O. Entitled *Procedures of Contract Research for Industry*, the brochure outlines the relationship which exists between the client or sponsor and the research institute. Copies are available from: Publications Office, Battelle Memorial Institute, 505 King Ave., Columbus 1, O.

Photoengravers Announce Powderless Etch Additive—An additive for use in powderless etching of copper has been developed by Photoengravers Research, Inc., at the Park Forest, Ill., laboratory. The new formula, called PERI 13A has been released to authorized suppliers for sale and distribution to member engravers.

According to the laboratory report, the new formula is an additive for iron chloride and is used in a manner similar to the GT-1 additive. The report states that when the additive is used in conditions set up at the laboratory, rates of etching up to 0.030 in. are obtained in 20 min. for copper line engravings. The normal rate is 0.20 in., in 15 to 17 min. It is also stated that there is no measurable loss of copper at the printing surface of type characters or line work even though none of the usual powdering is done.

Information about Photoengravers Research, Inc., may be obtained from Dr. Marvin C. Rogers, 2447 Western Ave., Park Forest, Ill.

Maintaining Type High Adjustments on Linecasting Machines—The Research and Engineering Council has published a 32 page booklet entitled *Mechanical Adjustments for Maintaining Type High on Linecasting Machines*. The information was compiled by an R&EC task force. Full instructions are given for keeping all related parts, as well as the back trimming knife, in proper adjustment. Instructions are given for both Intertypes and Linotypes.

It is stated that by intelligent application of the method the plant can maintain type high 0.918 in. (+0.001 in. and −0.0005 in. for type sizes up to and including 14 pt. and +0.0015 in. and −0.0005 in. for type sizes greater than 14 pt.).

To Head Sheridan Research—Ernest J. Sarring has been appointed manager of the Sheridan Research Center, Div. of T. W. & C. B. Sheridan Co. In his new assignment, Sarring will direct the development and design of new and improved machinery for the Graphic Arts. Formerly, senior development engineer with the Research Center, Sarring holds degrees in mechanical and electrical engineering on the bachelor level from the University of Illinois and a degree in mechanical engineering on the graduate level from Illinois Institute of Technology.

PATRA Creates Engineering Division—Plans to establish an engineering division for the Printing, Packaging and Allied Trade Research Assn., British research organization located in Leatherhead, England, have been announced. According to Dr. V. G. W. Harrison, director of research, the division will be headed by a mechanical engineer. The task of the division will be to study underlying mechanical principles of printing and packaging machinery, effecting improvements in design wherever possible.

Sharpness of Halftone Images On Paper

A special edition of *Research Progress* discussing the sharpness of halftone images on paper has been issued by the Lithographic Technical Foundation. In the issue George W. Jorgensen reports on the latest results from long term studies on print quality. The objective of these studies is to provide an automatic means for controlling print quality on the press.

The program includes: Basic research on the physics of the lithographic process, studies of the relationship between the physical factors in a printed image and their effects on an observer's impression of the quality of the print, development of methods that measure the different factors that affect image quality, applications of the measurements of these factors in statistical quality control and development of instruments necessary for a print quality program.

The article notes that when a press sheet is evaluated for the print quality of its halftones, one of the features studied is the sharpness and clearness of the detail. When a group of press sheets from various jobs is examined, often pronounced differences in image sharpness are found—differences that cannot be detected when the halftone transparencies from which they were made are compared.

These differences in sharpness are often important to the success of a job. For example, the illustration of a complex machine might demand prints having high detail sharpness; while a portrait might call for softer, less sharp detail. Another example could be a rerun job where a change is made in the type of paper but the appearance of sharpness of the press sheet must be duplicated.

The causes of the differences in sharpness can usually be traced to the plate, press, ink or paper.

The report on the research done at LTF on sharpness includes: Studies of the reaction of human observers to differences in sharpness; physical features of the image that relate to sharpness; method for measuring acutance (the term *sharpness* is confined to mental observations and evaluations and *acutance* is used to designate mechanical measurements that correlate with the human impressions), applications of acutance measurements, effect of paper on acutance and sharpness; method of predicting the potential sharpness from a paper before it is printed and interaction of sharpness with other quality factors.

Also, an interesting explanation is given for a common complaint from lithographic customers who specify 300 line halftones and then are disappointed because they look no better or even poorer than previous jobs using 133 line halftones.

The Action Program of the Education Council of the Graphic Arts Industry to Provide Printers with Qualified Employees

1. National Scholarship Trust Fund of the Education Council

a) Approximately $150,000 has been contributed to the Fund for scholarship purposes.
b) By September, 1960, 28 students will be in college under our scholarship program, with grants totalling over $20,000 for the school year.
c) Each summer approximately 10 teachers are provided scholarships to attend a college for a special program in graphic arts education.
d) Mail announcements of our scholarship competition and brief report of graphic arts industry career opportunities to over 24,000 public and private high schools each year. Information concerning this program is included in text books, and reports of various civic organizations, e.g., the American Legion report, "Need a Lift" which carries a paragraph concerning our program, has a distribution of 70,000 copies.

2. Vocational Guidance

a) Our movie "Printing—A Future Unlimited" was viewed by over 100,000 people in schools and civic clubs in 1959.
(1) During 1960 the movie will be shown on approximately 150 television stations throughout the U. S. During the first-half of this year it has been shown on TV to a potential audience of over two million people.
b) The Council has contracted to produce a second movie, early in 1961, depicting the managerial and professional career opportunities offered by our industry.
c) The Council will place career advertisements in the Journal of College Placement Officers to acquaint college people concerning our industry.
d) The Council replies to approximately 5,000 requests per year for career literature received from young people, school librarians, guidance counselors and teachers.
e) The Council has distributed over 500,000 folders "Should Your Child Go Into the Printing Industry" to local groups of printers for their use in working with school people.
f) School yearbook publishers are being urged by the Council to carry a graphic arts industry career message in each yearbook as a complimentary ad by the publisher and/or printer (approximately 30 have agreed to do so for next year).
g) Over 1,000 packets of career literature have been distributed by the Council to graphic arts teachers and guidance counselors. Each packet contains 17 booklets and articles, plus 10 bulletin board posters, describing career opportunities in various phases of the graphic arts industry.
h) Assisted Chilton Book Company in the publication of the book, "Printing Careers and Opportunities for You."

3. Recruitment, Selection and Aptitude Testing

a) Published reports on Recruitment and Selection of craft and supervisory personnel and have available portfolios of material on these subjects for member use.
b) Work with the U. S. Department of Labor in developing aptitude tests for specific craft occupations in printing and publishing; and disseminate information to the industry as these tests become available. Nine printing occupations are now covered by specific aptitude tests for use in selecting craft personnel.
c) Will shortly publish a report on aptitude and personality testing programs for supervisory and managerial personnel.
d) Hold an annual meeting of personnel directors in our industry on various phases of recruitment, selection and aptitude testing programs.
e) A color aptitude test kit is available for member use.

4. Relationships with Graphic Arts Teachers

a) Finances and staffs the professional graphic arts teachers association, The International Graphic Arts Education Association, which has a membership of close to 1,000, published:

(a) Survey of Schools and Colleges in the U. S. Offering Courses in Graphic Arts Education (over 3,000 copies distributed). Revision will be published in 1960.
(b) Outlines for Suggested Courses of Study in Graphic Arts for Industrial Arts Education, Vocational Education, Technical Institutes, Colleges and Universities (over 2,000 copies distributed). Revision will be published in 1960.
(c) Magazine, "Graphic Arts Education" (mailing of 3,000 per issue).
(d) News Bulletin (mailing of 3,000 per issue).
(e) "Graphic Arts in Education"—a pamphlet distributed to over 30,000 teachers, school principals and local and state supervisors of trade and industrial education.

b) Promote Printing Education Week Programs in schools.
c) Encourage and plan regional conferences for graphic arts teachers.
d) Conduct annual summer week-long conference on Printing Education (attendance of around 250).
e) Medals for outstanding graphic arts students in secondary school graduating classes.

5. Industry-Education Cooperation

a) Represents the graphic arts industry's educational interests at the national level with such organizations as the National Education Association, the American Industrial Arts Association, the American Vocational Guidance Association, American Vocational Association and the U. S. Office of Education.
b) Conducts an Annual Awards Banquet to recognize national and local industry leadership in the field of graphic arts education. (James J. Rudisill Awards; Elmer G. Voigt Awards)
c) Issues periodic mailings to over 300 state and local supervisors of trade and industrial education in the U. S., 49 local school superintendents and 400 national and state educational magazines.
d) Sends its exhibit "Graphic Arts in Education" to at least five major national educational conventions with a total of over 30,000 attendance of school administrators, board of education officials, state and local supervisors of guidance and trade and industrial education, guidance counselors, and teachers. The exhibit is also available for local industry use.
e) Published a "Manual for Use by Local Graphic Arts Industry-Education Advisory Committees" which is part of a portfolio on "How to Work With Schools".

6. In-Plant Related Education

a) Helped make available a correspondence school program for employees in the printing and publishing industry.
b) Providing technical assistance in the production of a series of five training films for use by schools and plants.
c) Have available a portfolio on "In-Plant Training Programs" for member use which includes the report "Related Technological Education for In-Plant Trainees".

7. Youth Group Activities

a) Junior Achievement Printing Companies.
b) Columbia Scholastic Press Association School Newspaper Typographical Awards (about 150 awards per year)
c) Boy Scout Printing, Bookbindging and Photography Merit Badge Program (about 5,000 total per year)
d) International Junior Benjamin Franklin Clubs (95)
e) Gamma Epsilon Tau (honor society for college graphic arts students) (7 Chapters)

TO: RICHARD SMALL, *President, Education Council of the Graphic Arts Industry, 5728 Connecticut Avenue, N.W., Washington 15, D. C.*

We want to share in the work of the Education Council in its efforts to provide us with well-educated, well-trained, qualified new employees. Enclosed is our check in the sum of: $ . . . . . ($25—Contributing member; $100—Participating member; $500—Sustaining member)

SIGNED:_____ COMPANY:_____

ADDRESS:_____ CITY AND STATE:_____

Quadder No-cast Switch Relocated For Machine Operator Convenience

Each of our three Linotype ad machines is equipped with a Star mechanical quadder. A switch prevents a line from casting when it is turned off. Originally, the switch and indicator light were located at the bottom of the quadder at the left side of the machine. To see the indicator light and to turn the switch off and on, the operator was required to reach across the front of the machine.

Fig. 1—Quadder switch box on elevator handle helps operator to see indicator light and gives easier access to switch.

I have removed the switch and light from the original position and attached both to the assembling elevator lift lever handle (Fig. 1). With the switch and light in this position and to prevent an unwanted line from casting, the switch can be flipped with the thumb as the assembling elevator is raised. The indicator light is visible at all times in this position. The line may be reset while the unwanted line is going through the machine. When the corrected line is sent in the operator flips the switch the other way with his thumb.

With the switch in the original position, most operators will turn off the switch and wait until the unwanted line has passed the casting cycle before turning the switch back on and setting the next line.

Here is information for installing switch and light in the new position:

Step 1—Make a holder for the switch and indicator light out of 0.025 in. sheet metal (over-all measurement 3¾ in. by 4½.) as shown in Fig. 2. Drill the holes as indicated. Cut away the unwanted areas. Next fold on dotted lines and solder edges together to make a box. Make the clip to hold the wires in this box, 1¼ in. wide by 15/16 in.

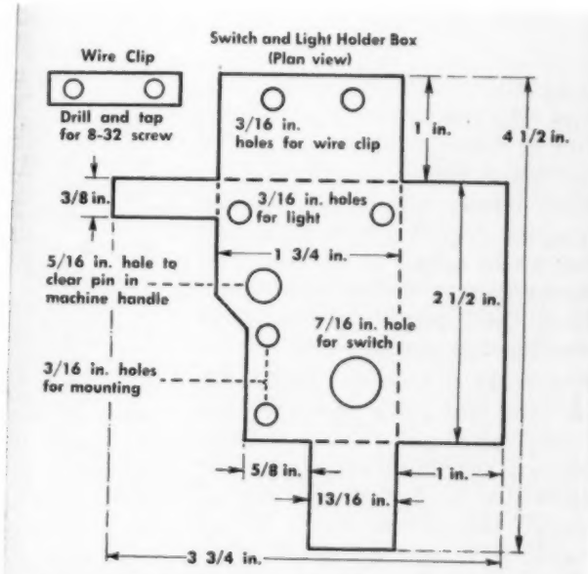


Fig. 2—Diagram in reduced size shows dimension layout and hole sizes and locations for quadder switchlight box.

Step 2—Mount the light and switch in the holes as shown in diagram. Attach the leads from the switch to the black and white and the leads from the indicator light to the red and green wires in a piece of Belden television rotor lead-in wire. Clamp the wire in place with the clip.

Now attach the wire to the right side of the keyboard with small clips. Drill and tap the handle used for raising the assembling elevator to take two 8-32 screws through the mounting holes in the switch holder. Mount the holder in place. Be sure to leave enough slack in the wire to permit free movement of the assembling elevator lever handle.

Step 3—Cut the lead-in wire at any convenient point at the rear of the keyboard. Attach a four prong plug to the wire from the switch holder. Attach the complementary receptacle to the piece of wire which connects the quadder. By breaking the wire in this manner you may remove the keyboard from the machine without disturbing the wiring. Be careful not to mix the different colored wires when attaching the plugs. Now run the wire under the machine to the quadder.

Step 4—Run the lead-in wire into the quadder through the hole in the bottom where the power supply enters. Now attach the red and green wires to the terminals to which the indicator light was originally connected (Fig. 3). Attach the black and white to the terminals to which the switch was originally connected. Replace the cover plate on the quadder and the job is finished.—*Max C. Carr, Chief Machinist, Marietta* (O.) Daily Times.

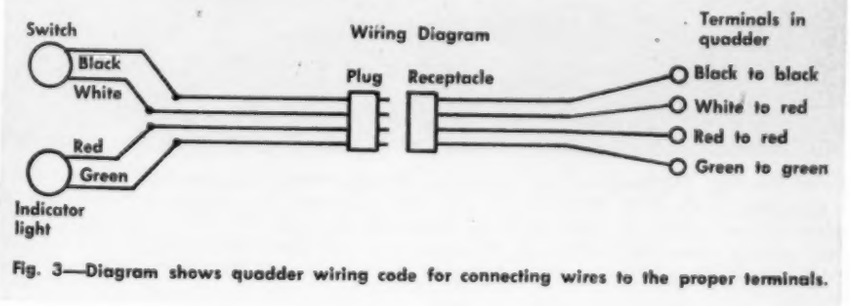
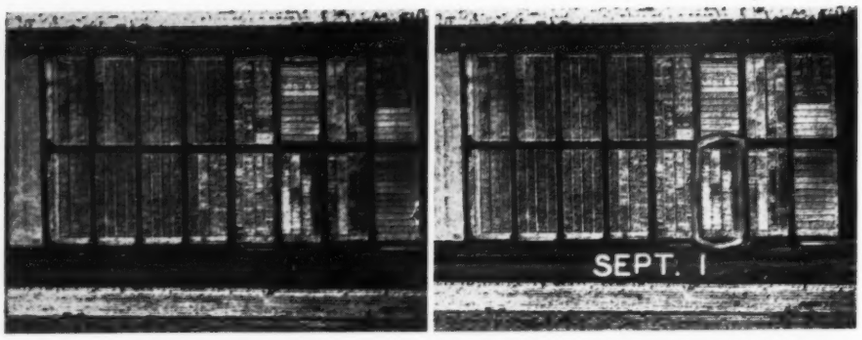


Fig. 3—Diagram shows quadder wiring code for connecting wires to the proper terminals.

How to Select Supervisors Title of New GAI Booklet

How to Identify, Select and Evaluate Supervisory Personnel is the title of a publication currently available from the Education Council of the Graphic Arts Industry. The booklet is a report on the Conference for Personnel and Training Directors in the Printing and Publishing Industry held last May.

Copies of this publication plus a companion report entitled *Supervisory Personnel Development Programs in the Graphic Arts Industry* are available from the Council at 5728 Connecticut Ave., N. W., Washington 15, D. C.



Under a viewer, the above stereo pair merge into one picture having 3-D aspects. The same effect can be achieved by focusing both eyes on a spot 10 to 15 ft. away and then looking at the pictures without re-focusing your eyes. Exaggeration in heights and depressions occurs.

Publish Four-Color Pictures in 3-D

Engraving and printing four-color, three dimensional illustrations can involve many problems, according to the printing, engraving and production teams that worked on the recently published book, *Manual of Photographic Interpretation.* Published by the American Society of Photogrammetry, the book contains many color and black and white, three dimensional pictures which were produced from aerial photographs.

Dr. Robert N. Colwell, University of California, edited the manual and supervised the production of engravings and the color printing. The black and white portion of the book was printed by George Banta Co., Menasha, Wis. All plates were engraved by California Art and Engraving Co., Berkeley, Calif.; color printing was done by the University of California Press.

Chief problems involved in the production of the illustrations were: Preserving the detail necessary for photogrammetrists and positioning the engravings to achieve the three dimensional effect. (Photogrammetry is the art or process of mapping or surveying with the help of aerial photographs.)

Producing 3-D Pictures

Stereo pairs are made by mounting two nearly identical photos next to each other with their centers approximately 2¼ in. apart—this is the average distance between a person's eyes and the distance between the lenses of stereo viewers. (Stereo pairs appear to be three dimensional when seen through a stereo viewer or with a trained eye.) Engravings of stereo pairs cannot exceed a width of 4½ in.

In placing the photos side by side, the engraver must be careful that details appear in the same relative position on both photos so that details will merge into one when seen through the viewer.

In order to preserve detail, it is necessary that a fine screen be used. Under a stereo viewer, halftone dots are magnified to a point that detail can be lost in the over-all pattern should the screen be too coarse. Thought was given to using the extra fine screens of offset, but it was rejected because of the difficulty encountered in maintaining color fidelity.

Study Newspaper's Engraving Costs

Plastic electronic engravings were found to offer cost and time advantages over zinc engravings for newspapers in a recent study conducted by the Production Engineering Div., American Newspaper Publisher's Assn. Research Institute.

Conducted at the Easton (Pa.) *Express*, the study estimates the cost of electronic engravings produced in this plant as $0.0709 per sq. in. Whereas, the cost of purchased zincs is estimated as $0.46 per sq. in.

The *Express* has a daily ciruculation of 50,000 and a weekly volume of approximately 200 pages. The study encompassed four days. Two Fairchild Scan-A-Gravers (Model F266A) operated by photographers are used at the *Express*. Copy for electronic engravings includes local news photos printed to size, wire photos, art, Polaroids and internal copy prints. Generally, two engravings are made of each photo for running direct.

In addition to its plastic engravings, the *Express* purchases some zincs (society portraits, ad halftones and some line work) from a local engraver. Considered in the cost analysis were all operations necessary to process copy from the time of receipt through delivery of engravings. Cost of backing engravings with pressure sensitive tape was included, but application of engravings to the press plate was not.

Color Printing, Photoengraving Techniques Demonstrated—The plant of Marland Photoengraving Corp., Fort Washington, Pa., was the scene of a recent demonstration of advanced techniques in photoengraving and color printing. Working with Marland in this venture were Master Etching Machine Co. and Heidelberg Eastern, Inc. Master engraving equipment was used, and engravings were proofed on Heidelberg two color presses.

● *Second in series on photomechanical methods shows negative densities must be determined before making screen positive.*

By GYAN P. MADAN
Color Analyst

CONVERSION METHODS FOR

Pleasing Litho Color

IN Part I of this series we stated that experts and skilled technicians believe that at least 75% of future printing will be in color. They feel it is necessary to find newer and more economical methods of color reproduction. In agreement with these ideas, we proposed adoption of a color reproduction method for use both in photoengraving and offset platemaking processes. To achieve the goal of what we term *Pleasing Color*, it is important that buyer and seller of color printing should settle at a point somewhere between the two extremes of quality and cost.

Last month we stated the color reproduction technique chosen is intended for offset-lithography. The original used is a color transparency. We discussed making the mask and were ready to prepare the separation negatives.

The aim in making the separation negatives is to obtain a matched set. This is done by balancing the separation negatives at a range of 1.40 with a minimum density between 0.30 to 0.40. In other words, in each of the separation negatives the step H on the photographic gray scale should read a density between 0.30 and 0.40, and the density difference between step H and L should read 1.40.

Obtaining Density Values

As we know that these density values are governed by exposure and development, the simplest way is to use a trial and error method. Trial and error test is *only* applied in making a test separation negative with No. 29 filter, and the results obtained are used in calculating the exposure and development times of the other two separation negatives.

To begin with, a test exposure of 5 sec. is made through a No. 29 filter and developed for 4 min. in Kodak DK-50 developer. The negative is dried and read on the densitometer to find the density obtained from the 5 sec. exposure. If this density value falls within our required limit, we have got our exposure to start with. If not, the Kodak Graphic Arts Exposure Computer is used to find the correct exposure. This correct exposure is then used to calculate the exposure for Nos. 61 and 47B filters by referring to the filter ratio table in the film data sheet furnished with the film box.

The correct development time is found from the time-gamma curve or from the table in the film data sheet. To obtain gamma, combined density of mask and transparency is divided into the ideal density range for separation negatives:

$$\text{Gamma} = \frac{\text{Ideal density range of separation negatives}}{\text{Combined density range of mask + transparency}}$$

In the present case, the combined density range of mask and transparency is 1.2, and the ideal density range for the separation negatives is 1.4. Therefore,

$$\text{Gamma} = \frac{1.4}{1.2} = 1.1$$

Having obtained the value of gamma, the correct development time is read from the data sheet against each filter and the type of developer used.

Must Use Standardized Procedure

At this point we state that these theoretically calculated values produce true results in practice only if a proper and standardized procedure is followed throughout the complete process. It is also possible that these values may differ slightly when handled differently in the various plants. It is strongly recommended that each should standardize the procedure under its own conditions and the equipment used. The summary of exposure and development recorded in our case is given in Table III and will serve as a useful guide.

After careful washing and drying, the negatives are checked on a densitometer for their balance; they are acceptable if they are within ±0.05 of minimum density, and ±0.10 of the maximum density. The densities of the separation negatives recorded are shown in Table IV.

The density data show that the separation negatives are balanced within the required density values. We can now proceed with the making of the screen positives. Should these negatives have to be re-made, always remember the same old rule that adjustments in the minimum density are usually the function of exposure and in the maximum density the function of development.

We are going ahead with making screen positives from continuous tone separation negatives because the platemaking and printing

TABLE III—Data for separation negatives made by contact.

No.	Printer	Film	Filter	Light	Exp.	Type	Development Dil.	Development Time	Development Temp.
1	cyan	Kodak Sep.	29	100 W.	5 sec.	DK 50	F.S.	4½ min.	68° F.
2	magenta	Neg. P.B.	58	at 16 V.	6 sec.	DK 50	F.S.	5 min.	68° F.
3	yellow	Film	47B		4 sec.	DK 50	F.S.	6½ min.	68° F.

TABLE IV

	Step L	Step H	L-H
1. Cyan	1.72	.32	1.40
2. Magenta	1.75	.35	1.40
3. Yellow	1.74	.34	1.40

TABLE V

Printing color	Percentage dot size in highlight step	Percentage dot size in shadow step
Yellow	8	72
Magenta	9	80
Cyan	10	85

process chosen in this case is photolithography. But the same continuous tone separation negatives can be used for photoengraving. Since screen negatives are used for photoengraving, it will be necessary, first, to make contact positives of continuous tone separation negatives. Kodak No. 33 plates or Kodak Commercial film is used for making contact positives.

Making Offset Screen Positives

Screen positives for offset can be made with a conventional glass halftone screen or with a contact screen. The choice of one over the other is dependent on conditions, equipment available and the skill and the experience of the operator. The use of contact screens, however, is increasing every day in camera rooms. The reason for popularity of the contact screen lies in its advantages which are as follows:

(1) Contact screens cost less than the conventional glass halftone screen.

(2) Contact screens are easy to handle and store and are unbreakable.

(3) Contact screens do not present complications in screen distance and lens aperture.

(4) Contact screens can be used in a camera as well as in a contact frame.

(5) Contact screens produce results not to look, but to print and they offer advantages relating to definition and gradation of the screen image.

There are a number of makes of contact screens available. The one we are going to use is a Kodak Magenta Contact Screen. It offers an effective working method recently introduced by Kodak. It is called the CC Filter Method and replaces the old Yellow No. 4 and Magenta No. 30 filters with Color Compensating (CC) yellow and magenta filters. Under this CC filter method only one exposure is given. A single exposure through yellow CC filters decreases contrast and an exposure through magenta CC filters increases contrast.

This method works in a simple way. It can be applied in making halftone positives in a camera or in a vacuum contact printing frame. The choice of one over the other depends on the final size of the reproduction. In most cases the reproduction is not the same size as the transparency, and the halftones have to be made in a camera. In the present instance, the halftone positives are made by contact.

The equipment used is a standard vacuum printing frame fitted with two register pins to hold the continuous tone separation negatives which were made on punched film. The light source fitted with a 100 W. bulb operating at 16 V. is positioned 3 ft. above. Material required is an angled set of contact screens and some film of high contrast with Lith type emulsion which can be either Reprolith Ortho Type C (Ansco). Kodalith Ortho Type 3 (Eastman Kodak) or Cronar Ortha A Litho (Du Pont). These films yield excellent dot quality with wide exposure and development latitude.

Exposing Screen Positives

We are now ready to expose the screen positives. Referring to Table IV, we find that the separation negatives are balanced at a density range of 1.4. To begin with, out of the entire set of separation negatives which were made on punched color, the one with the strongest density (in most cases cyan) is chosen. It is then exposed for 12 sec. to white light without any filter on a punched piece of Kodalith Type 3 film through a 45 deg. angle Magenta Contact screen. The screen is sandwiched between the separation negative and the film, *emulsion to emulsion*. The exposed film is developed in Kodalith A & B developer at 68 deg. F, agitation lasting for 1¾ min. the remaining 30 sec. being still bath development.

Our aim in making screen positives is to obtain a neutral gray scale. The three screen positives are balanced in their gray scale with dot percentages depending on wet or dry printing method. If the work is to be printed wet, some allowance must be made for color gain in the dot percentages of cyan, magenta and yellow screen positives. Color gain in wet printing is greatest with the first color printed, and least with the final color. It is difficult to mention the exact percentage of color gain in each of the screen positives as it depends largely on the quality of the ink used. In general, color gain may range up to 25%. Table V, however, may serve as a useful guide in most cases to balance the screen positives for wet printing.

For dry printing, the cyan, magenta and yellow screen positives are balanced at 10% highlight and 85% shadow dots. Taking the above factors as a basis, we now examine the gray scale of the screen positive just made from the cyan separation negative and determine which step of the gray scale has the most acceptable highlight and shadow dots.

If the highlight and shadow steps, *i.e.*, step H and step L, have the dot size we are looking for, then the screen positive requires only white light exposure. Otherwise the exposure will have to be ad-

(*Continued on Page* 100)

NEW... a liquid developer and liquid fixer that match the performance of Kodak powders.

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Savings in fixing bath—You save 14 to 17% simply by buying Kodak Rapid Fixer this way. You save storage space, too, because the Cubitainer requires less space than conventional gallon jugs of equal capacity. The 5-gallon carton, Solution A (fixer concentrate) makes 20 gallons of film fixer, 40 gallons of paper fixer. Solution B (hardener) is used 1 to 10—½ gallon to each 5 gallons of Solution A. Order each solution separately.

Try this new convenience now and keep your darkroom running smoothly. A call to your Kodak dealer will set you up fast.

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Graphic Reproduction Sales Division **EASTMAN KODAK COMPANY,** Rochester 4, N. Y.

For More Information Circle 71 on Reader Service Card

Craftsmen Start Library of Tape Recorded Speeches

Tape recordings of speeches by Graphic Arts leaders have been assembled into a library by the International Craftsmen's Assn. Included in the initial collection of tapes are speeches and discussions which took place during the Craftsmen's convention last August.

Topics discussed on the tapes include: Photomodification camera, Brightype process, web offset, packaging, the composing room and supervisory methods.

Inquiries should be sent to: Roy Gurney, Club Program Chairman, University of Toronto Press, Toronto, Ont., Can. Tapes are available to member clubs without charge.

Speaks on Printing Safety

Methods of increasing safety in the printing industry will be discussed by Bernard J. Taymans, general manager, Printing Industry of America, during an open forum at the 48th National Safety Congress, Conrad Hilton Hotel, Chicago, Oct. 18. Session leaders for the printing and publishing section of the Congress are Walter R. Smith, R. R. Donnelley & Sons, Old Saybrook, Conn., and Stanley L. Juroff, safety coordinator, New York *Times*.

Education Council Meetings

The date for the annual awards banquet and for the meeting of the National Scholarship Trust Fund board of trustees has been announced by the Education Council of the Graphic Arts Industry. Both will be held at the Drake Hotel, Chicago, Jan. 18, 1961.

"Let me know when you're running short of litho wipers!"

Camera Magic in Printing Plates Is Dependent Upon Craftsmanship

"Craftsmanship when applied to the camera can turn poor copy into pleasing reproductions, or transform good copy into a work of art," said Bernard R. Halpern, of E. I. du Pont de Nemours & Co., in addressing a photomechanical clinic at the recent Atlanta Craftsmen's convention. He said it is axiomatic that a good negative is an essential ingredient in good printing reproduction.

Halpern observed that the camera is no longer a simple light-tight box with a lens and a place to hold a negative. Cameras have become as highly mechanized and specialized as other printing equipment. The general purpose darkroom camera is still the most popular one in the printing industry.

There are many other types of cameras designed for specific functions. Included are fixed reproduction ratio cameras, conversion cameras such as Brightype, modification cameras such as the Modigraphic, rectification cameras for use in photogrammetry, and production cameras for quantity output such as the Chemco. There are also cameras used as component parts of equipment, such as for phototypesetting, photolisting and photo assembly. Also in the foregoing list are electronic reproduction equipments, including color scanners and plate engravers, the speaker asserted.

Accuracy is Essential

"Accuracy," said Halpern, "is the most important characteristic of a good camera. Accuracy is essential if we are to reproduce correctly fine line detail such as serifs or hairline strokes in typography. Accuracy is just as important when we require controlled distortion of printing detail as may be needed in rectification, modification or conversion.

"Exact proportions or controlled rectification in camera design is purely geometric in its arrangement. If the copy and negative planes are flat and parallel, the reproduction will be enlarged or reduced to geometric proportions. Out of parallel relationships will produce a corresponding distortion. Also, if the copyboard and negative surfaces are not flat, then localized distortions will occur.

"Distortions are good when we need and can control them. They are bad if they occur in the standard process camera where they are not wanted. Part of the camera magic is in understanding the geometry of these conditions and just how to use them."

Using Process Lenses

The speaker discussed the properties and uses of process lenses. "When used wide open the lens provides a maximum of photographic speed, but is critical in its ability to provide a sharp image over its rated negative area. As the lens is stopped down, its depth of focus and field of coverage improve, but the smaller stops require longer exposures and the image definition will decrease due to a diffraction effect. . . . When glass halftone screens are used, the geometric relationship of the camera planes, as well as the diaphragm opening and the screen distance, must all be tuned to a harmonious balance for each ratio of reproduction if the best dot formation is to be obtained."

Halpern said that to make a good negative, good negative material is needed. A large share of camera magic is in understanding the properties of the photographic emulsions used. Such expressions are gamma, characteristic curve, toe, inertia, shoulder, bump, mask, fog, fringe, resolution and acutance may sound like a peculiar language, but each term is of special significance to the camera man. By knowing the best relationship between exposure and development, the correct balance between screen and non-screen or bump exposures, and the characteristics of each emulsion, a lot of real magic can be performed in making the negative.

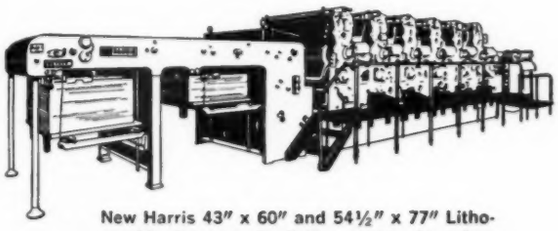
Continuing, the speaker explained techniques for varying the size of halftone dots in the negative so as to obtain full values throughout copy reproduction.

(*Continued on Page* 74)

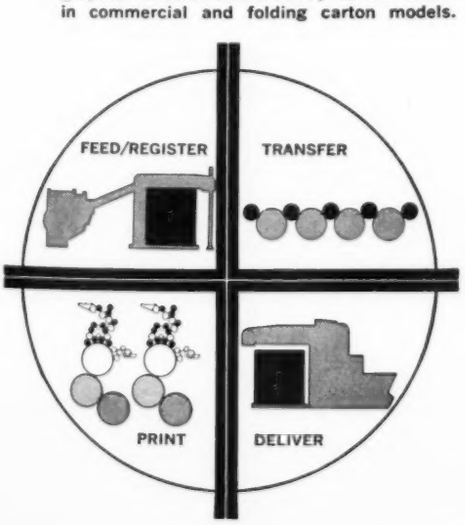
DURING TRANSFER...

control

EVERY INCH OF THE WAY



New Harris 43″ x 60″ and 54½″ x 77″ Lithographic Presses. Available up to six colors in commercial and folding carton models.



The fewer gymnastics a sheet goes through during transfer, the more certain you can be that register will be maintained and smudging minimized. And the more salable sheets you'll get from a run.

In the Harris Transfer Control Zone only two cylinders per printing unit carry the sheet—the impression cylinder and the double-sized transfer cylinder. In addition, at least seven other features maintain the sheet stabilization and positive register *initiated* at the Feed/Register Control Zone.

Stabilized and in register, the sheet is under constant control through printing and delivery. In each of four key zones Harris design elements "sense" and respond quickly to variations in materials, to changes in operating conditions. Factors that cause down time and affect quality are under control every inch of the way.

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It is a good thing to have in your next press. Ask your Harris representative for a feature-by-feature account of Control Zone Design—important reasons why a man does his best work on a Harris.

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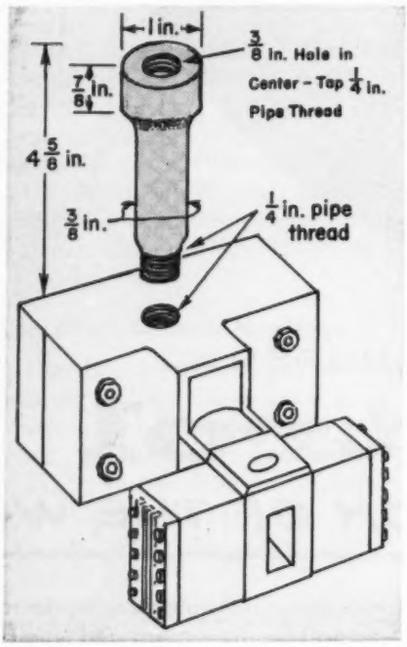
EMERGENCY ELROD REPAIR

Not so long ago, while changing the diffusion tube on a Model F Elrod, the long cast iron holder for the tube itself snapped off. An effective repair was made in the emergency and the machine was put back in operation.

The repair was made by machining and threading a piece of 1 in. cold rolled steel rod. Measurements shown in the diagram should enable anyone to make a similar repair in an emergency, particularly when the product of the machine is needed badly.

After the new adaptor had been finished according to measurements shown in the diagram, the mold



housing where the break occurred was filed smooth. Using a slow speed drill, the hole in the mold housing (EC 1305½ ED) was enlarged to 7/16 in., and tapped with a ¼ in. tapered pipe tap. All the metal cuttings were then blown from the mold housing.

When installing the diffusion tube adaptor, or the diffusion tube itself, a graphite-oil mixture should always be used on the threads. It is not necessary to turn up the piece extremely tight as heat will expand both adaptor and threads.

The diffusion tube adaptor shield (EC 1330½ A) was replaced. The two mounting screws (EC 1243) were replaced with the graphite-oil mixture also being used on the threads. The pressure oiler feed line connector (EC 1280) was replaced; the pressure oiler line was connected, and the air was bled from the feed line. The machine is now ready for operation.

After the metal in the crucible has been melted, the mold housing should be flushed with the molten metal to make certain that no shavings caused by the machining contact the mold.

The three burner shields may be replaced after checking for metal leaks around the repair joints.—*R. D. Fisher, machinist, Ada (Okla.)* Evening News.

Skid Delivery Made at Ground Level

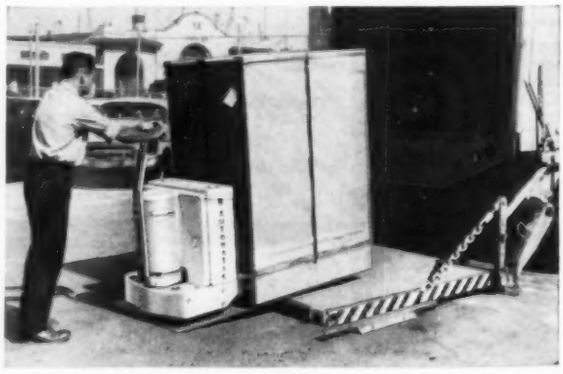
An idea in materials handling which might be useful to many companies in the printing industry is being utilized by Zellerbach Paper Co., San Francisco.

The idea became reality in development of equipment to permit movement of heavy skids of paper from the delivery truck to either shipping dock or at street level. The equipment developed for this purpose consists of a modified delivery truck and a hinged platform or skid adapter fitted to a battery powered low lift pallet hand truck, both operated by one man. The skids of paper weigh from 2000 to 4000 lbs. each.

The delivery truck's load capacity was increased to approximately 24,000 lbs. by adding a trailing axle. Then a specially designed 6 ft. by 8 ft. hydraulic lift gate was installed on the truck. To reduce overall length of the truck, the gate mechanism was constructed to fold up against the back of the van. When folded against the back of the van, it serves as a tail gate.

The principal change in the Automatic low-lift pallet truck was in the platform structure which comes down over the pallet forks. This skid adapter is hinged to the back plate of the pallet forks. When not in use, it is folded back against the battery housing. Standing upright, it serves as a backstop for pallet loads which are highly tiered.

The electric powered low-lift Automatic Transporter is used in the loading of the truck in a first-last sequence. The walkie is left under the last load placed on the truck. Upon arrival at a stop, the tail gate is lowered to the bed level of the truck. A safety stop is placed at the end to prevent the truck rolling off. The load is then raised and brought onto the tail gate which is lowered. The operator often stands on the magnesium ramp which is attached securely to the gate's end. When the gate reaches dock height or sidewalk level the load is taken away either over the ramp or directly onto the loading dock.



In order to deliver heavy skids of paper to ground or dock level, Zellerbach Paper Co. devised the combination of equipment (shown), consisting of a modified delivery truck and a hinged platform or skid adapter fitted to a battery powered low lift pallet hand truck. One man can operate both pieces of equipment during the delivery process.

For the Reader

A chance to be paid for ideas which have netted savings in time, money and effort in your printing plant is offered readers of *Printing Production*. If your idea is accepted for publication it will be printed in the Idea File, a regular *Printing Production* feature, and a check will be mailed to you.

Send as many as you wish to: Idea File Editor, *Printing Production*, 1276 W. 3rd St., Cleveland 13, O.

TROUBLE REDUCED BY SPRAY AT START OF OFFSET PRESS RUN

When running coated paper on our two color offset press we always spray the ink rollers on each unit with Anti-Skin Bomb. This is done just before starting up after each load change. Spray helps reduce tackiness of the ink on the first few sheets. This permits delivery of the first sheets without the trouble caused by sticking to the blanket. Also, when starting each load, the spray prevents misregister between the units. We also use the spray to cover the ink in cans from which we have taken out only a small part of the ink. —*Martin E. Odell, pressman, Gospel Trumpet Co., Anderson, Ind.*

CARBON SHEET FOR MAKEREADY

On presses where it is necessary to stab a sheet and paste it on for makeready, I find it much easier to place a piece of blank carbon paper between the tympan sheet and the second or makeready sheet. I then simply turn the press over once on impression. The result is an image for makeready purposes. — *Joseph Lavender, Mgr. Kensington Press, Inc., Higganum, Conn. Courtesy Kimberly-Clark Corporation.*

DUMB-WAITER TYPE ELEVATOR FOR FORM TRANSPORT DUTY

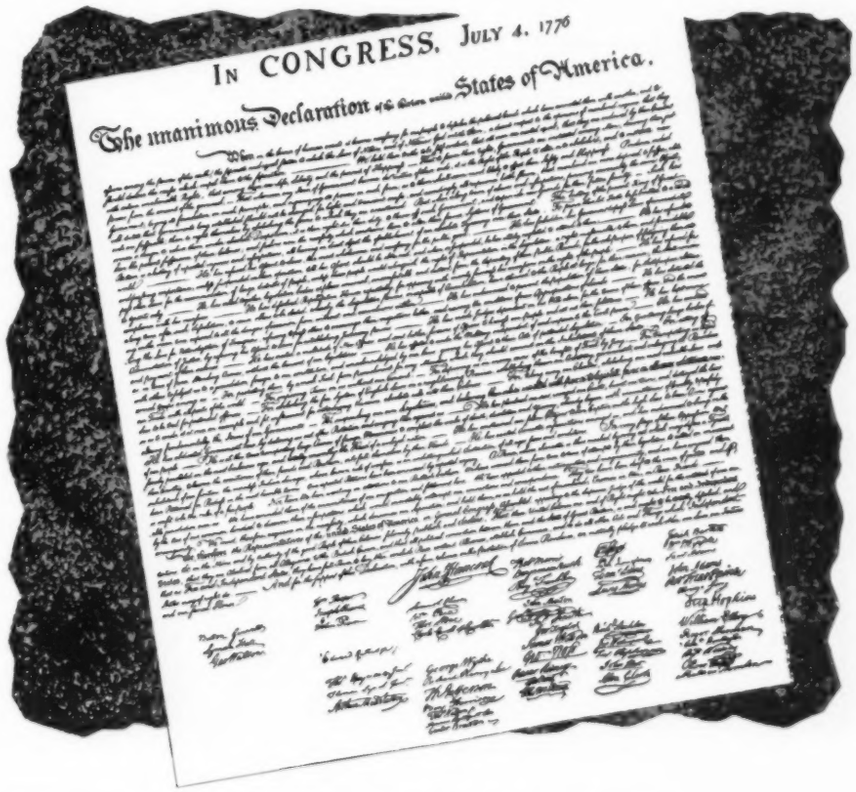
During the recent renovation of our plant we were faced with necessity for replacing a 50-year-old freight elevator. This elevator had been used to deliver page forms and trucks to and from composing room to stereotype department.

We made a dumb-waiter type of car 3 ft. by 4 ft. by 3 ft. This is the maximum size permitted without being subject to elevator regulations. The car floor is reinforced steel armor plate. The walls were constructed from 10 ga. sheet steel. An oak buffer board was installed inside the car at form truck height.

Gibs were provided on two sides of the car; these ride on the web of the 6 in. I beams mounted vertically and extending from basement floor to first floor ceiling.

An electrically operated ½ T. hoist was installed at the top of the elevator shaft and 3/16 in. wire cable was doubled down to the car and back to the drum. The car travels at a rate of 55 ft. per min.

When nearing the top and bottom terminals the car frame comes in contact with switches at both levels to stop the car at floor level. Movement of the car also raises and lowers safety gates at both floors. A piece of half round ½ in. steel was welded to the car floor to prevent form truck movement while the car is in motion. The entire machine is encased in 16 ga. sheet steel and is painted to match composing room wall color.—*W. W. Batdorff, composing room foreman, Sault Ste. Marie (Mich.)* Evening News.



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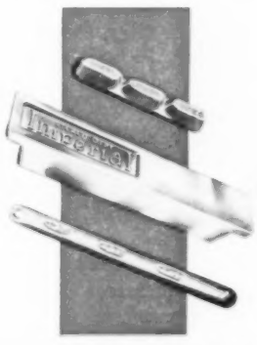

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For More Information Circle 93 on Reader Service Card

NYEPA Elects Officers—The New York Employing Printers' Assn. elected officers for the coming year at its recent 95th anniversary meeting in New York City. Left to right are: Richard P. Stanley, Stanley Impressions, Inc., vice chairman; Harry G. Wolfe, Davis, Delaney, Inc., treasurer; Donald B. Thrush, Thrush Press, Inc., chairman of the board; Anthony Perrusi, Advertising Agencies Service Co., Inc., vice chairman; Jesse J. Lehman, Georgian Press, Inc., secretary, and Don H. Taylor, president.

Camera Magic

(Continued from Page 70)

Halpern declared that for exact image detail reproduction, line work is more exacting on the camera than are halftones. In line work the accurate reproduction of serifs or hairline strokes in characters requires an image detail sharpness that is about four times as great as that needed for the best halftones.

In discussing color work, the speaker said that the camera man now has the equivalent of a magic wand at his disposal in the form of a densitometer. With it he can control the photography so that the set of halftone negatives or positives he turns out will produce plates that will print the required color combinations the first time through the press.

Halpern concluded his address with the thought that all camera magic is worthless if the camera operation is not a part of a harmonious team of printing craftsmen. He also stressed communications before and after finishing the work by the entire production team.

Interesting comments by members of the panel were made following conclusion of Halpern's address. Panelist Robert Schulz, Eastman Kodak Co., commented upon reproduction film and its use. Products of all film manufacturers, he said, will make good negatives. He cautioned, however, that the maker's products should be used according to directions on the package. Generally speaking, it is better to make over a negative in case of a mistake. He also mentioned emphatically that modern safe lights be used in the darkroom in place of the ruby type to improve work quality.

Panelist William Bradley, Imperial Packaging Corp., Atlanta, spoke about some of the fundamentals with which the platemaker should be familiar. Most illustrative copy is reproduced over the entire scale. It is therefore necessary to introduce controls in reproduction work. In connection with the gray scale it is advantageous to make tests before processing emulsion and developer.

In color work it is best to underexpose for the red, yellow and blue films and overexpose for the black. This method will help you come closest to proper reproduction.

Uncontrolled Light is Thief

The greatest thief in the platemaking industry, said Bradley, is a light source not under control. Only a few minutes are required to clean the camera lens. Get rid of all extraneous light, such as a 150 W. lamp bulb in the camera room as well as large white objects; for light rays from them find their way into the camera lens. Paint the camera copyboard black. Be particular with masking to prevent unwanted light penetration. The camera room ceiling and floor may be painted a slate gray or black, so that only light reaching the lens will be reflected from the copyboard itself.

The darkroom can be painted white or light color so long as the safe lights are "safe." The entrance and/or door to the darkroom may

(*Continued on Page* 106)

WHAT'S AHEAD FOR THE READER

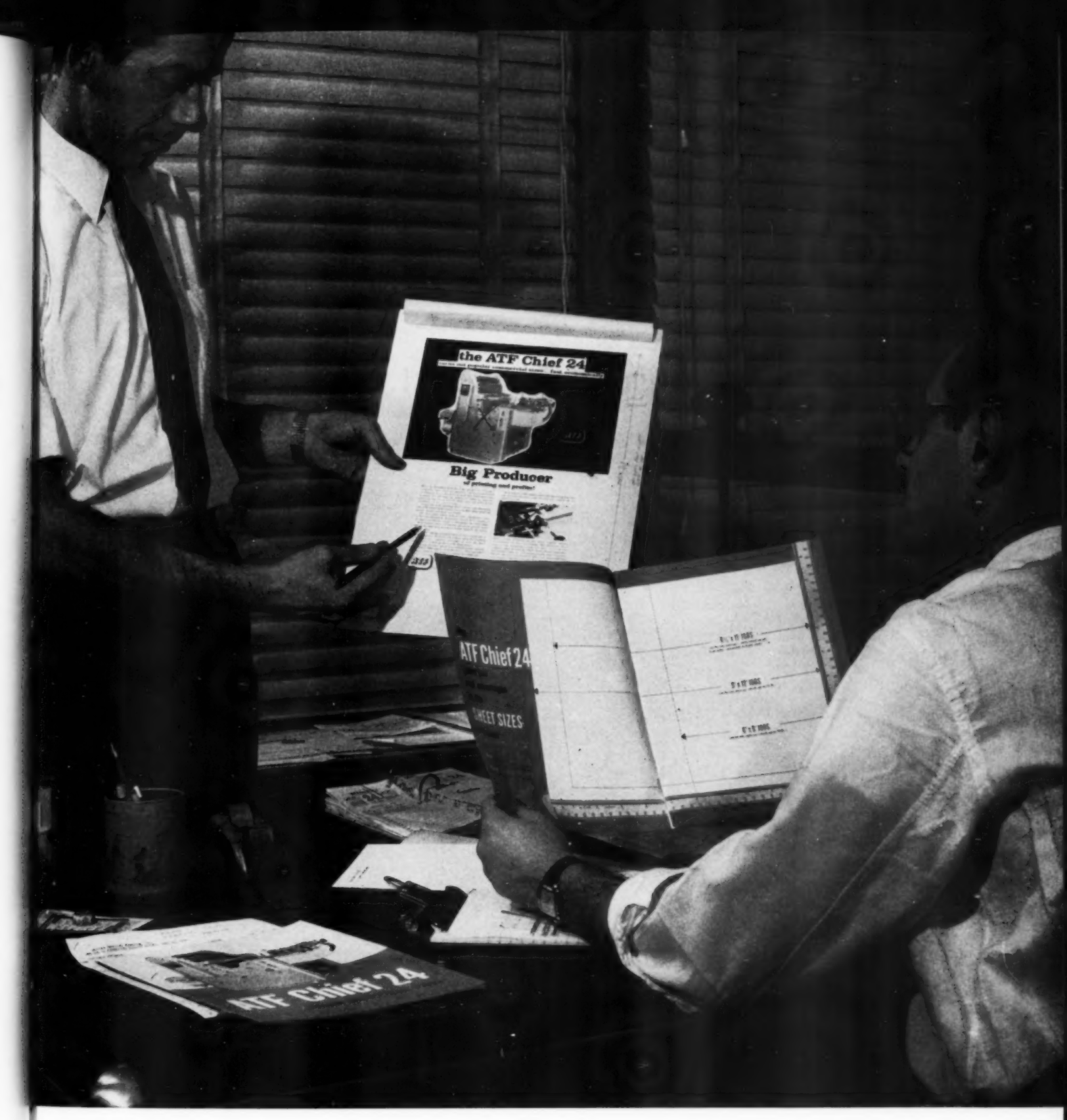
One of America's biggest producers of greeting cards opens its doors to *Printing Production* readers in next month's issue. Some highly interesting details of greeting card production practices will be explained. You also may be surprised about the size of this field from the standpoint of printing volume. This November issue feature will add to your understanding of important printing product lines.

Interested in time saving ideas and techniques for a newspaper composing room? Then look for an illustrated story on work simplification as demonstrated in the plant of the LaSalle (Ill.) *Daily News Tribune*. Possibly some of the ideas can be applied to your own operation.

Among other informative reading in the next issue will be stories on: Techniques of registering a makeready overlay; how research fights ink offset in ROP color printing, and a machine which makes color separated engravings direct from a single color transparency or print.

In addition, see the concluding part of the *Pleasing Color* series. The author discusses quality control in halftone positives and standardization in ink values to obtain best over-all printing results.

***Printing Production* editors will also be on the scene of conventions being held this month. In November, read their reports of the important discussions of the National Assn. of Photo-Lithographers and American Photoengravers Assn. Keep abreast of printing's progress through the columns of this magazine.**



"This job is 8½ x 11" full bleed. If we put it on the new ATF Chief 24 we'll get at least 19,500 per hour."

THE CHIEF 24 FEATURES SPEEDS UP TO 6500 IPH—HANDLES 8½ x 11" (WITH FULL BLEED) OR 9 x 12" JOBS FOUR-UP. ***Write for Literature.***

ATF **American Type Founders**

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ATF type faces used in this advertisement: Century Schoolbook with Italic and Craw Clarendon Book

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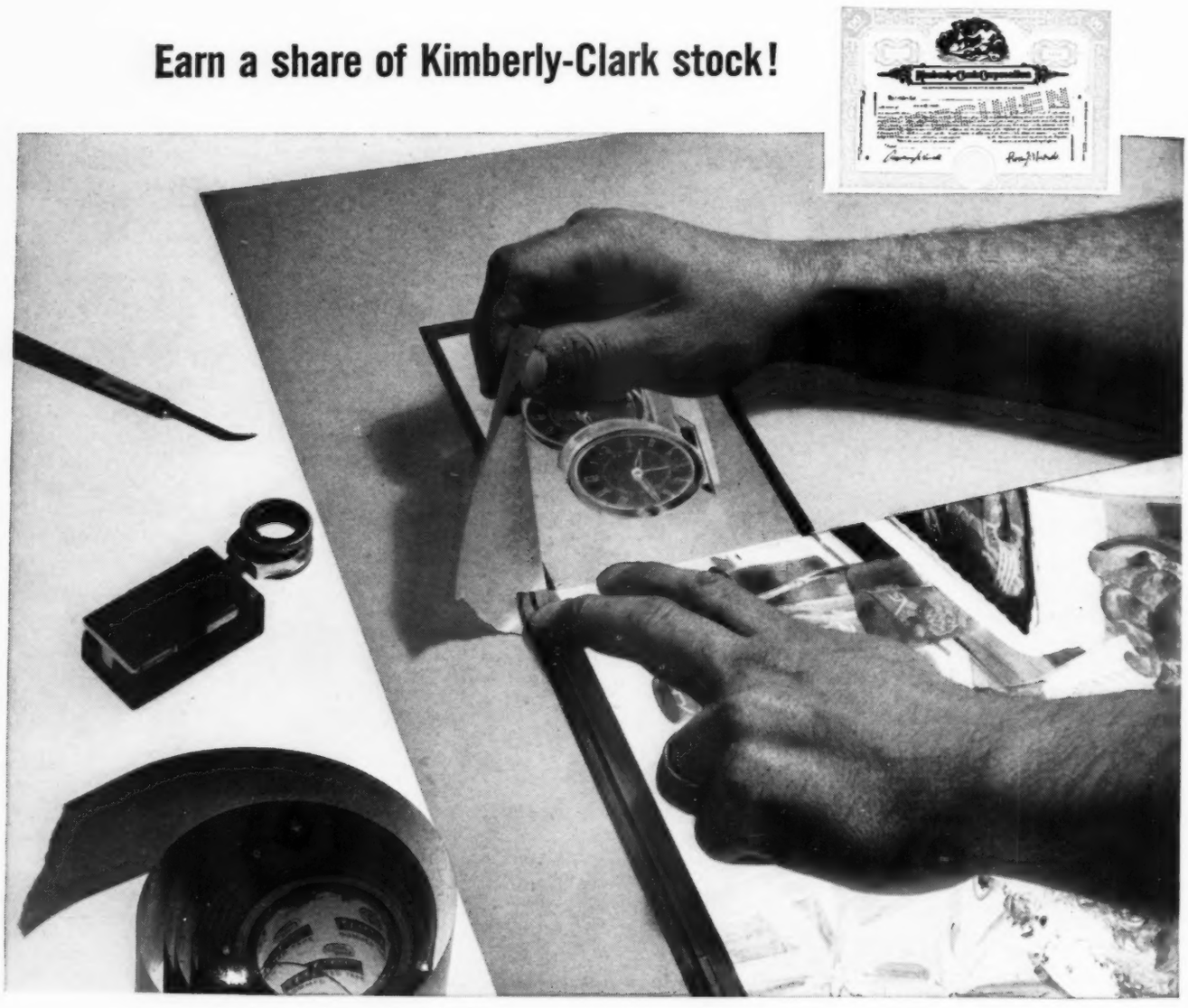


Stock earner No. 10!

Stripping tip—A common and vexing stripping problem is to strip halftone negatives in an area so tight that the ordinary cellophane tape method cannot be used. To do this operation neatly and quickly:

1. Moisten the glue on a piece of good gummed paper.
2. Place it, gummed side up, under a corner of the negative which is in position to be attached to the flat.
3. Press down firmly on the negative and slide the gummed paper out. This will transfer just enough adhesive to the negative to give a neat, firm bond which will be invisible on the exposed plate. Repeat operation on each of the other corners.

Fred Gebhart, Superintendent,
Grant Dahlstrom: Castle Press, Pasadena, Calif.

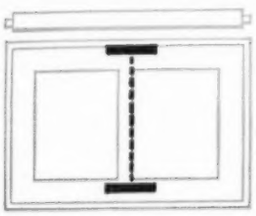
Stock earner No. 11!

Potatoes purify pots—To clean lead pots, put a potato on a steel rod and hold it on the bottom of the hot lead pot. This causes the dirt and settlings to boil to the top where they can be skimmed off.

R. E. Lineberry, Manager, Printing Dept., J. P. Stevens & Co., Inc., Greensboro, North Carolina

Stock earner No. 12!

Roller-saving rule—When running rollers over a perforating rule which is perpendicular to them, the rollers are often cut by the rule. This damage can be prevented by adding a piece of rule perpendicular to and at each end of the perforating rule to protect the rollers from being cut.



Fred J. Kicanas, Hillison & Etten, Chicago, Illinois

Send us your ideas—You may earn a share of stock. Just write them out clearly and simply and send to Kimberly-Clark. Pictures or drawings that help explain the idea are welcome. All ideas become the property of Kimberly-Clark. For each idea chosen to appear in subsequent national magazine ads, a share of Kimberly-Clark stock will be awarded to the sender. In case of similar contributions, only the first received will be eligible for the stock. Decisions of the judges are final. A total of eighteen shares will be awarded.

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Kimberly-Clark Corp.
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PRENTICE VELVET COATED OFFSET

by Kimberly-Clark

Prentice Velvet adds prestige to your printing! Makes the jobs *look* expensive by combining a velvet-like surface for glare-free readability with the sharp tonal reproduction of a premium mineral-coated sheet.

Prentice Velvet adds versatility to your printing with its ability to handle rich, full-color photos, wash drawings, contrasty blacks and whites—even metallic inks.

Prentice Velvet adds profit to your printing by cutting press time and production costs because it performs with the ease of an uncoated offset sheet.

Kimberly-Clark's complete line of printing papers includes:

For letterpress:
Hifect enamel
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For More Information Circle 101 on Reader Service Card

Receives Civic Apprenticeship Award—L. E. Oswald (center), treasurer and plant manager, E. F. Schmidt Co., Milwaukee, has been awarded the Milwaukee Vocational School's Civic Apprenticeship award for his contributions to the training program for Graphic Arts apprentices in Milwaukee. Oswald is past president of the Lithographers & Printers National Assn. Shown, left to right are: David W. Jones, executive director, Graphic Arts Assn.; Earl Vogt, president, GAA; George Parkinson, director, Milwaukee Vocational School; Oswald; Al Redman, president, Milwaukee Typographical Union; Peter Olsen, treasurer, GAA, and Anthony Karpowitz, Apprentice School chairman.

Graphic Arts Honor Society Inducts Honorary Members—Gamma Chapter of Gamma Epsilon Tau, Graphic Arts Honor Society at New York City Community College, inducted three honorary members at a recent meeting. Shown with the honorary members are Leonard Perski (left), Graphic Studios, and Charles Shapiro (right), educational director, Lithographic Technical Foundation. The three new members are, in center, left to right: F. E. Church, assistant production manager, Time, Inc.; Dr. Murray H. Block, dean of the college, New York City Community College, and Henry Schneider, secretary, Charles Francis Press, all of New York.

Indiana Newspaper Honored—The South Bend (Ind.) *Tribune* has been honored by Goss Company for its cooperation in field testing experimental developments in printing press design. J. A. Riggs, left, president of Goss, presents a plaque to Franklin D. Schurz, third from left, *Tribune* editor and publisher. Watching are Walter Braunsdorf, right, pressroom foreman, and Carl Schafer, pressroom superintendent.

White Ink Printing Offered by Look

White ink printing, a technical advance for use in the publication field, has been developed by *Look* magazine. Marvin Whatmore, vice president, said that the process is comprised of that publication's own special refinements and improvements in every step of what would otherwise be known as the gravure process.

"With these refinements and improvements," he continued, "about the only relationship Look-Kromatic method has to high speed gravure is that gravure cylinders are used to produce it."

The white ink printing is designed to make it possible to achieve strong display of white goods or white elements in an advertisement. "The white ink is whiter than the best white paper in an ad containing predominantly white elements," Whatmore asserted.

Look-Kromatic utilizes special ink, a new machine-coated paper and 10 color press equipment.

In explaining the method, Whatmore pointed out that high speed gravure uses uncoated paper, depending to a high degree on absorption of the ink into the fiber of the paper. Look-Kromatic, however, departs from the absorption principle, picking up the ink and freezing it under heat on the surface of the paper.

Best results with the process, it was explained, can be achieved with original art and copy, but the work can be done with positives if the artwork is not available, Whatmore asserted.

The Look-Kromatic process was developed with the cooperation of R. R. Donnelley & Sons, Chicago.

Screen Process Printers Plan November Convention

The 1960 convention and show of the Screen Process Printing Assn. will be held at the Sherman Hotel, Chicago, Nov. 11-13. William Wolke, Kalmus and Associates, Chicago, is general chairman.

Previous to the opening of the convention on Nov. 10, a workshop will be held for managers and supervisors.

"This ATF Chief 29 costs less to own and operate... prints a better dot... uses less floor space... than any 23 x 29" offset press."

But don't take our word for it. Ask any printer who operates one—then write for the Chief 29 booklet which tells *why*. Address Department PP.

ATF **American Type Founders**

200 Elmora Avenue · Elizabeth, New Jersey

ATF Type Faces used in this advertisement... Text: Century Schoolbook with italic; Logo: Craw Clarendon Book.

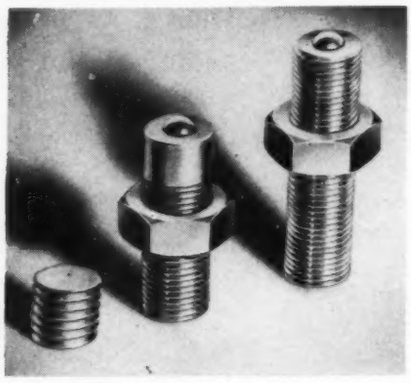
For More Information Circle 10 on Reader Service Card

EQUIPMENT AND SUPPLIES

You may easily and quickly obtain additional information on the new equipment, supplies and services mentioned on these pages by completing the special Reader Service Card conveniently found in this issue.

MATERIALS HANDLING FACILITATED THROUGH USE OF AIR JETS

Paper Equipment Distributing Co. has designed a line of air jets for converting present machines and work tables into air tables. The air jets, which are used to facilitate material movement, are available in three styles: Continuous air, ball type—press fit, and ball type—screw type.



The air jets are manufactured of brass with the ball of stainless steel. The jets can be used with either high or low pressure air systems and contain no internal springs. Depending upon the surface, the material being moved and the mounting centers of the valves, the jets are said to provide air support which freely allows movement of up to 500 lbs.

The jets are supplied in standard ½ in. by 27 thread and can be mounted in steel, wood, Masonite, Formica or plastic top tables. The product may also be used to augment conveyor systems, expand work areas around machines, and in the bed of machines to reduce operator movement and strain. Circle No. 253 on Reader Service Card.

VERTICAL PROCESS CAMERA DESIGNED FOR COLOR SEPARATION

A vertical color camera developed specifically for transparency separation has been introduced by Durst (USA), Inc. Called the G-139, the camera covers enlargement and reduction of negatives and positives from 35 mm. up to 5 in. by 7 in.

Among the features of the unit mentioned are a three lens turret, counterbalanced head and pin register systems in both carrier and vacuum panel. Filters are located ahead of the optical system thus filtering the light and not the image. Condensers, transparencies and filters are said to be protected from heat damage due to the use of a reflex light system.

Two types of light units are available: Synctrol, (shown in picture) designed with a panel console which includes all control components for tungsten type light sources, and Durstronic, specifically designed for Graphic Arts use. Advantages claimed for the Durstronic light unit are: Better reproduction of the straight line curve, shorter exposures, a more constant light intensity, closer exposure relationship in filter factors, constant color temperature, and less likelihood of heat damage to the transparency. Circle No. 252 on Reader Service Card.

POLICROM SCREENS FOR ROTOGRAVURE

Complete lines of Policrom crystal and grained crystal screens for rotogravure and Rototipo bicolor film screens for rotogravure and screen process printing are available from Royal Zenith Corp.

The crystal screen is available in sizes of 100 cm. by 150 cm., to 80 cm. by 170 cm., with rulings from 20 lines to 100 lines per cm. The grained crystal screen is manufactured in sizes of 80 cm. to 100 cm., with grains corresponding to screens of 60 lines to 70 lines per cm.

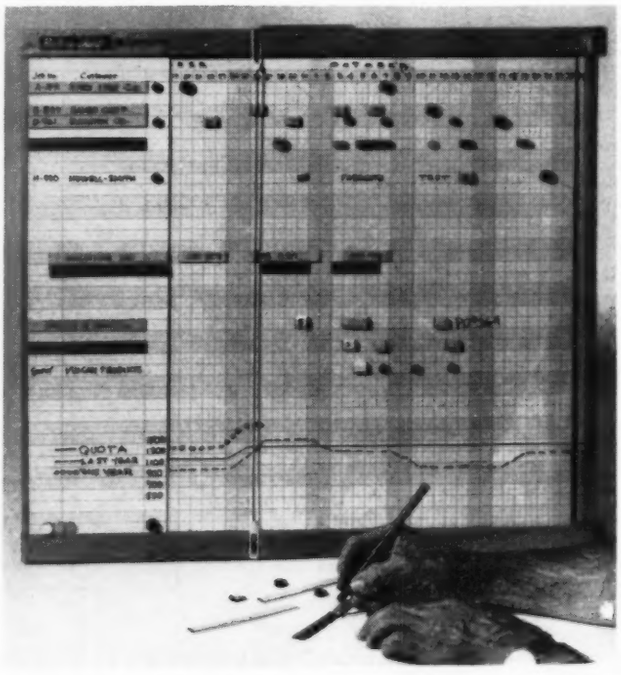
The Rototipo bicolor film screen is made in rectangular and circular forms. It is a positive contact screen which permits variation in the size and depth of the dot. Circle No. 278 on Reader Card.

CONTROL BOARD EQUIPPED WITH MAGNETIC INDICATORS

A visual control board for assisting in all types of scheduling, which is equipped with a moveable plastic overlay and magnetic indicators, is being marketed by Rol-a-chart Div., Conley, Baltzer & Steward.

Indicators are available in six colors

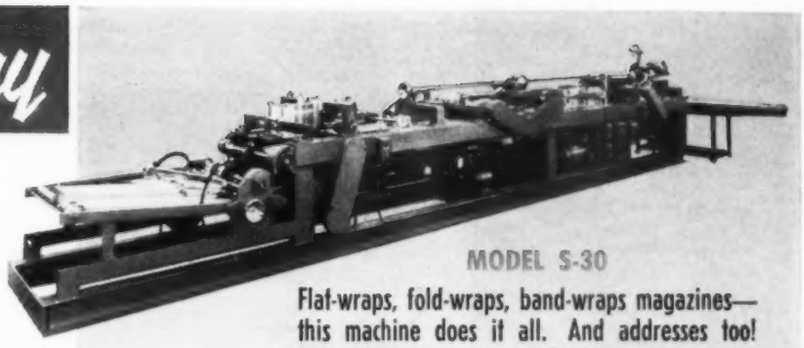
Durst G-139 vertical camera was developed for transparency separation work. Synctrol light unit, left, is used with tungsten light sources.



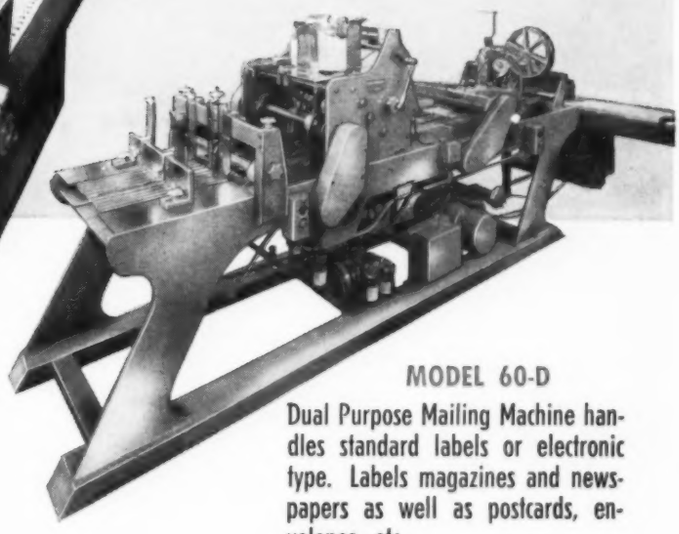
Rol-a-chart visual control board is used for all types of scheduling. Magnetic indicators can be marked and wiped off when desired.

the modern way

MODEL SR-3
Signature Tipping
Machine 3-pocket model.
Only one operator needed.



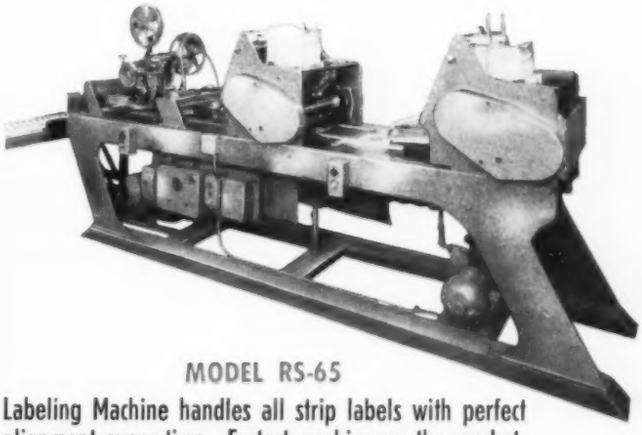
MODEL S-30
Flat-wraps, fold-wraps, band-wraps magazines—this machine does it all. And addresses too! Either dick strip or cut labels with excellent register.



MODEL 60-D
Dual Purpose Mailing Machine handles standard labels or electronic type. Labels magazines and newspapers as well as postcards, envelopes, etc.

MAGAZINE
WRAPPING
INSERTING
LABELING
TIPPING
faster and better by
MAGNACRAFT

Engineering and manufacturing "know-how" are built-in features found in all Magnacraft heavy-duty machines. You are assured of excellent performance and increased production for years.



MODEL RS-65
Labeling Machine handles all strip labels with perfect alignment every time. Fastest machine on the market. Handles magazines from 5x7 to 12x18 thickness up to 5/16" easily.

Exclusive Selling Agents

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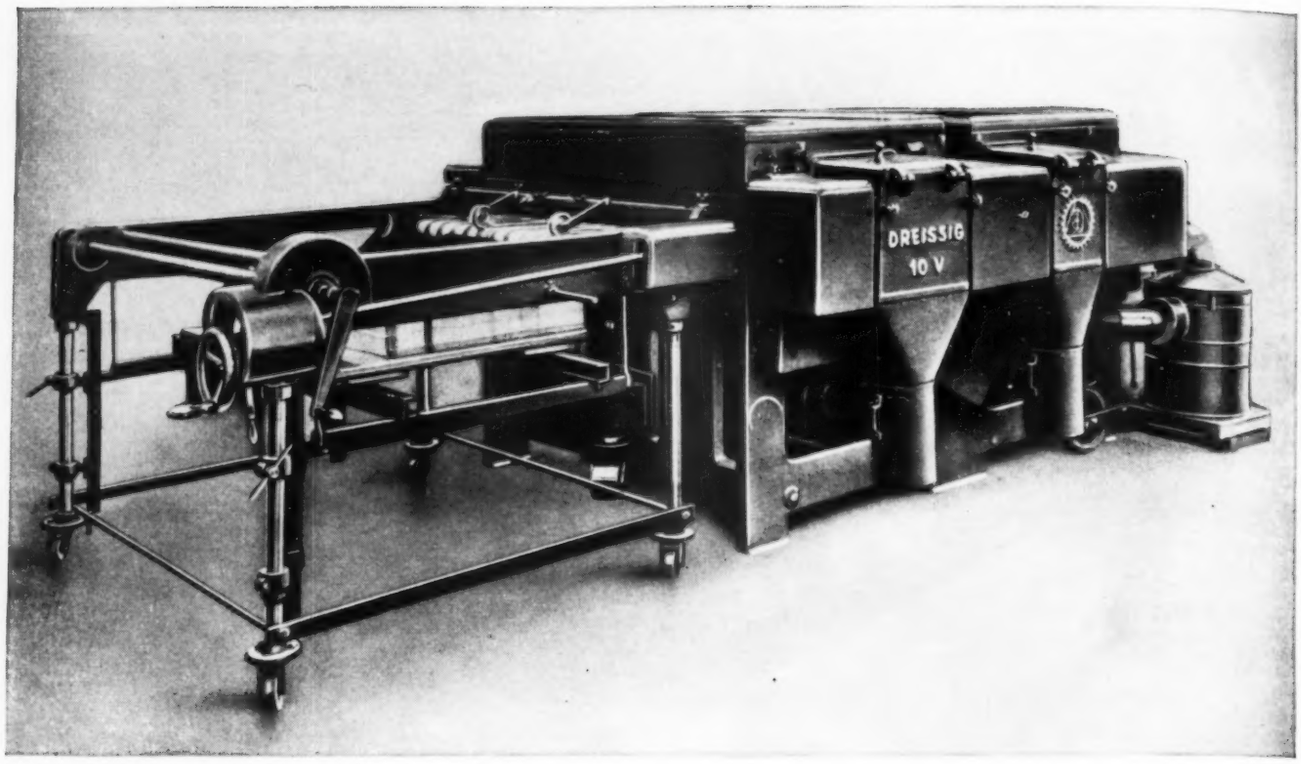


DREISSIG

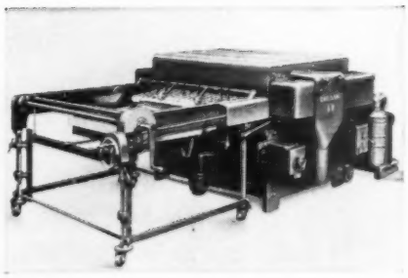
Bronzing Machines

THE KOMBI 10V

The latest and most modern bronzer, the DREISSIG KOMBI 10V, a high speed bronzing and dusting machine, is designed for use in Tandem with either offset or letterpress equipment. Also available for operation from roll to roll. The maximum sheet size is 55" x 80".

- **Section One** is a bronze applicator which includes six burnishers and four dusting bands.
- **Section Two** consists of four additional burnishers, six dusting bands and two sets of upper and lower dusting-off rollers.

Two additional models of DREISSIG BRONZERS are available. The Dreissig 6V with 6 burnishers and 6 dusting-off bands and the Dreissig D6 with 4 burnishers and 6 dusting bands.



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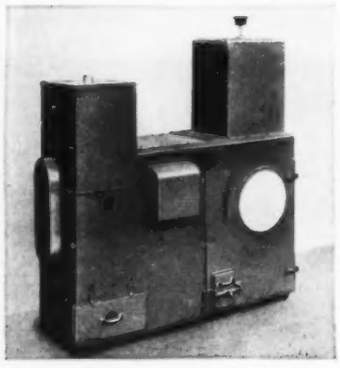


DREISSIG BR is a new concept in bronze cleaners and sifters. It not only eliminates vibration, and therefore the need for lubrication, but also produces the cleanest, loosest bronze powder possible.

HENRY P. KORN

ASSOCIATED, INC.

5 Beekman Street, New York 38, N. Y.

Telephone: REctor 2-5808

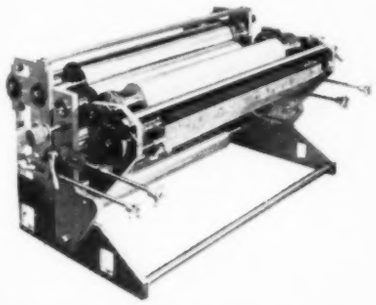
For More Information Circle 98 on Reader Service Card

and in various sizes and shapes. The indicator surface permits entries to be marked or coded by the user. Entries so marked can be wiped off when desired.

Entries can also be made directly on the plastic overlay which is moved daily by means of a roller, towards a "today" line. Indicators placed on the board over the plastic also move in the same relationship. Circle No. 251 on Reader Card.

FLEXOGRAPHIC PRESS AVAILABLE WITH UNIT TYPE CONSTRUCTION FEATURES

A unit type flexographic press, has been announced by Faustel Incorporated. The press is constructed with a predrilled frame



for stacking up to six colors. Available in sizes from 15 in. to 42 in., the Modular Flexographic press, as it is called, may be used as a tail end printer or in full roll to roll operation. Also featured is running register control with positive lockup and helical gearing. Circle No. 294 on Reader Service Card.

KLUGE SERIES D PLATEN FEATURES NEW INKING AND DELIVERY SYSTEMS

The D Series of Kluge automatic platen presses has been announced by Brandtjen & Kluge, Inc. According to the company, the series is an improved version of the Series C press announced last spring.

Among the improvements incorporated in the Series D press is a redesigned inking system. All standard Series D presses are set with a squeeze of 0.015 in. between the rollers and form. Sponsor states that this setting is advantageous to job work including halftones, solids and color process work. Rotation of the ink disc can be controlled from 0 deg. to 10 deg. per impression, thus permitting Kromatic printing.

The throwoff handle has been eliminated in the new series, allowing the impression to be controlled by a pull knob located with the other controls. An impression may be pulled even though sheets are not being fed, and sheets may be printed when the press is open.

Widening of the automatic delivery allows the acceptance of sheets measuring 11 in. by 17 in. on the 10 in. by 15 in. press. The delivery will hold 14 in. of stock. The magazine of the new Series D has also been altered to accept sheets measuring 11 in. by 17 in. and has a stock capacity of 14 in. A new feature allows the feeding of odd size and oddly shaped stock, such as tags or open diecut envelopes. Reportedly, advancement can be changed from the normal 1/16 in. to either 1/8 in. or 3/16 in. for thick stock.

The shape of each cam has been altered so that the feeding arm parallel sweeps the lower 5 in. of the platen. This new parallel action is said to eliminate resetting the feeder arm height when changing from one job to another.

Other changes in the D series include a steel press frame, 50% larger air valves on the intake and exhaust, increased air filtration facilities, improved gearing mechanism and use of prelubricated ball bearings. Circle No. 295 on Reader Service Card.

STRONG DESIGNS ARC LAMP FOR SMALL SHOPS AND SCREEN PROCESS

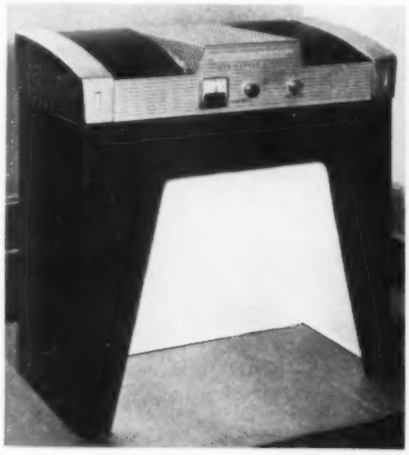
A motor-driven arc printing lamp designed for small reproduction shops and screen process printers has been announced by Strong Electric Corp. Known as the Comet 45, the lamp is a self-contained unit consisting of a transformer, timer, contractor, 20 in. by 20 in. metal reflector and carbon storage facilities.

The arc burns a trim of 6 mm. by 7 in. photographic carbons and is said to provide a light coverage for work areas up to 28 in. by 36 in. Features of the lamp include an automatic striker, feed and return. After a total burning time of 1 hr. and 10 min., the carbon holders return to a new trim position. At that time, all circuits are open for safe installation of new carbons.

The Comet 45 is 32 in. high, 27 in. wide and weighs approximately 80 lbs. It may be plugged into any 110 V. outlet. Circle No. 277 on Reader Service Card.

COLOR MATCHING CLAIMED TO BE FACILITATED WITH LIGHTING BOOTH

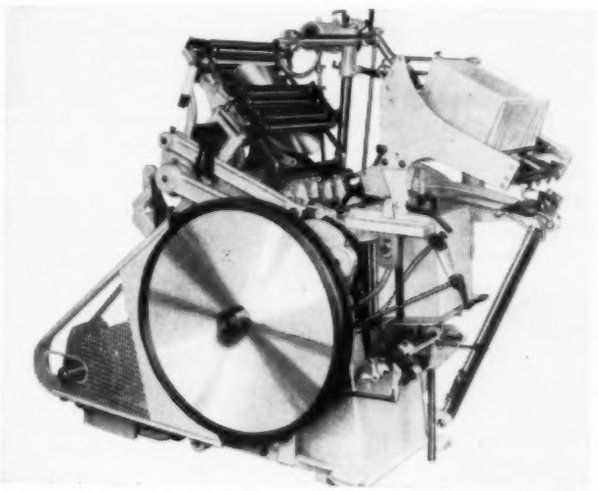
The Gamain Co. has announced a light source called a Gamain Generator which is claimed to reconstruct four different types of lighting conditions in addition



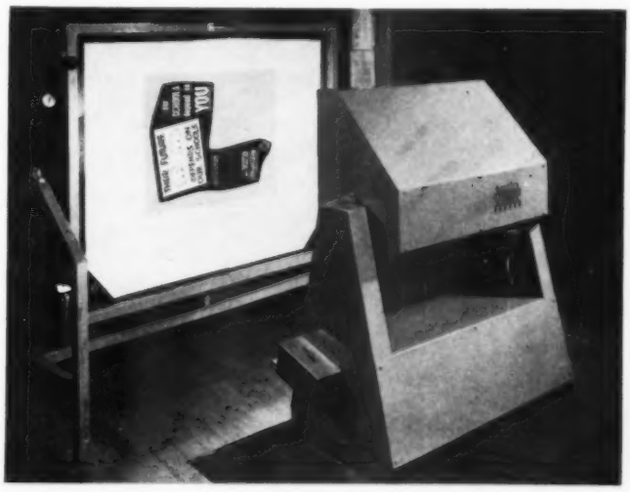
to ultra-violet. Designed for use as a viewing booth for color comparison purposes, the various light conditions are created with fluorescent, incandescent and ultra-violet light sources plus colored filters.

Blending of the different types of light sources and filters to create one of the four conditions is accomplished through preset controls. Simulated light conditions and the corresponding color temperature in degrees Kelvin are: Incandescent and Standard A, established by the International Commission on Illumination (C.I.E.)—2848; Cloudy, hazy, smoky daylight—4000; Standard C of CIE—650, and North light—7500.

The company recommends that standard



Kluge Series D automatic platen press will accept sheets up to 11 in. by 17 in. Impression throwoff has been replaced with a pull knob.



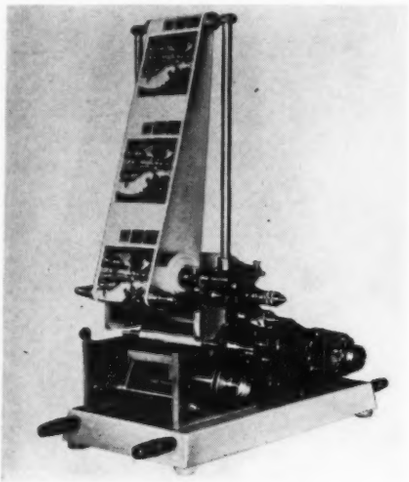
Shown is the Comet 45 arc lamp designed for small reproduction shops and screen process printers by the Strong Electric Corp.

C be used as a color matching standard. As a metameric (where a color matches under one light source but not under another, test of a color, the user is urged to check the color with Standard C lighting, then with Standard A light.

Light source life is approximately 1000 hrs. after which the complete set should be changed. Circle No. 260 on Reader Service Card.

GRAVURE AND FLEXOGRAPHIC PRESS TESTS INKS, PAPER AND COATINGS

Two models of Engler presses for plant laboratory testing of flexographic and rotogravure inks, paper and coatings are being distributed by Amsterdam



Continental Types & Graphic Equipment Inc.

Model FTM 130 is available for paper widths of 6 in. or 12 in. and can be equipped for testing either gravure or flexographic inks. Model AFTM 149 is available in a 6 in. paper width unit and includes an adapter for testing gravure and flexographic inks.

The presses are equipped with paper feed, rereeling mechanism and electric motor. Circle No. 279 on Reader Card.

ELECTRONIC COUNTER CAN BE PRESET TO REPEAT IN QUANTITIES OF 100

An electronic counter called Tally-Count 242 has been made available by Standard Instrument Corp. Industrial applications of the instrument include batch counting, linear measurement and cut off, container filling, sheet counting and machine cycling.

The manufacturer indicates that the counter is designed for automatic control of industrial processes and will actuate equipment at any preset count from 2 to 100 at speeds faster than 1000 operations per min. In operation, the desired batch count is set on direct indicating switches. When this count is reached, a control relay closes momentarily (100 millisec.) to operate any external device. The counter resets to zero instantaneously and continues the counting process. There is claimed to be no loss in count.

Actuation of the counter is by external contacts (Micro-Switch, magnetic switch, toggle switch, relay). Where it is advantageous to count without physically contacting the product, separate photoelectric controls may be connected to the unit.

An optional time delay feature may be connected to extend the operate time of the control relay from the standard 100 millisec. up to 60 sec. A special model of the unit is also available which can be preset in dozens instead of units. Another feature claimed for the counter is the lack of moving parts. Circle No. 280 on Reader Service Card.

PHOTOCOPY PAPER USEFUL IN COPY PREPARATION AREAS

The marketing of a projection speed photocopy paper designed to retain fine dot characteristics of halftones has been reported by Peerless Photo Products, Inc. The Tru-Dot paper is claimed to reproduce the dots of a magenta screen film negative up to 133 line.

Application of the high resolution paper to the lithographic and letterpress processes takes place in copy preparation areas. Stripping time is cut, the sponsor claims, since continuous tone photos may be screened in the camera, developed and contact printed to the Tru-Dot paper. The resulting screened print can then be pasted in position on the mechanical and shot as a whole as line copy at lower rates.

The paper is available as a single weight glossy 39 lb. per 1000 sq. ft. baryta coated stock. Circle No. 269 on Reader Service Card.

WORD AND PHRASE FILM FONT DESIGNED TO SPEED AD SETTING

A special retail font has been designed by the Halber Corporation for use on Typro photolettering machines. The font consists of 160 frequently used words and phrases such as bottle, qt., 303 can, pint, 400 count, etc. which eliminates the need to spell out words.

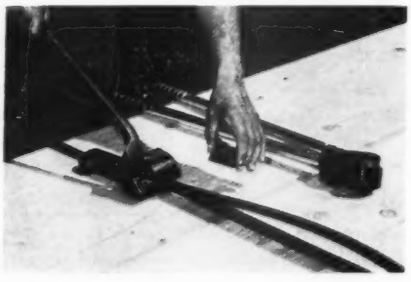
The type style is 8 pt. Alternate Gothic No. 2 and includes numerals, and dollar and cent signs in 24 pt. and 36 pt. Futura Bold Condensed.

Because words can be composed below one another, a number of phrases can be produced which reduces cutting and pasting. Words are selected by the power drive of the Typro machine which holds up to 15 different fonts at one time.

Manufacturer states that columns of items can be justified directly at one setting when used in conjunction with a stop gauge on the machine. Numerals, phrases and words placed below each other are automatically centered in straight columns. Circle No. 281 on Reader Service Card.

STRAPPING TOOLS CLAIMED TO APPLY UP TO 1½ T. OF TENSION

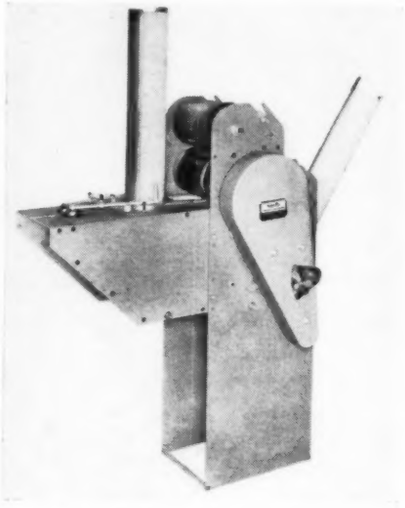
Two newly designed strapping tensioners, TH34 and TH114, have been released by the Signode Steel Strapping Co. The tools were designed for use in operations where permanent strapping stations cannot be established.



Sealing may be accomplished either in front of, or behind the tensioner. According to the manufacturer, the feed wheel utilizes the strap's own recoil tendency to lock it into the tool during tensioning. Application of 1 to 1½ T. of tension per strap is claimed for the tools, however, painted, waxed or coated strapping is specified. Tool weight is 6 lbs. Circle No. 261 on Reader Service Card.

FLEXOGRAPHIC LID IMPRINTER

A flexographic lid imprinter has been released by KamRu Products Corp. The unit is capable of printing two colors



on lids 6 in. in diam., either round or square. Other specifications include: Direct loading and feeding, automatic stacking, and variable speeds from 40 r.p.m. to 90 r.p.m. The company states that production of 10,000 lids per hr. is attainable. Floor space necessary for the unit is 18 in. by 35 in. Circle No. 282 on Reader Service Card.

OFFSET PRESS PERFORATING RULE

A perforating rule especially manufactured for offset presses and called Perfo-Strip, is being distributed by Foster Manufacturing Co. The material consists of perforating teeth located in the center of a flexible strip which can be attached to the press impression cylinder with tape. The product is claimed to allow printing and perforating on all models of offset presses from 10 in. by 14 in. to 54 in. by 76 in.

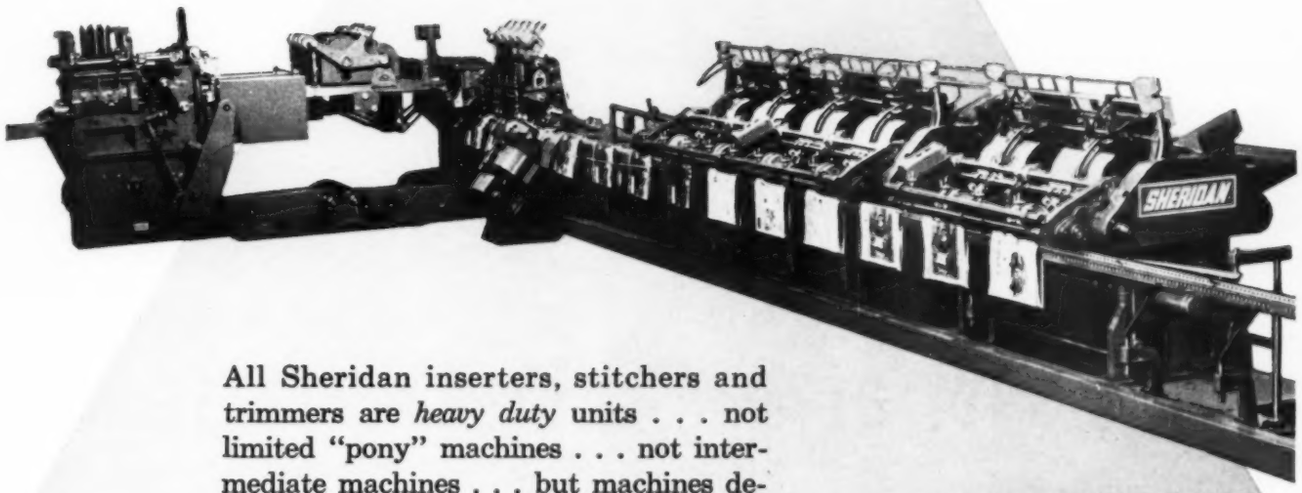
The tape is available in either 6 ft. or 20 ft. lengths with 8, 12 or 16 perforations per in. The same type of material can also be purchased as a scoring rule. Circle No. 275 on Reader Service Card.

NEW CURVED CONVEYOR FITS ANY DEGREE OF CURVATURE

Engineered Handling Systems Div., Wiretyer Corporation, has developed a curved conveyor which the manufacturer claims can be produced in any degree of curvature and centerline radii and in various belt widths to suit the application.

AUTOMATIC SADDLE BINDING?

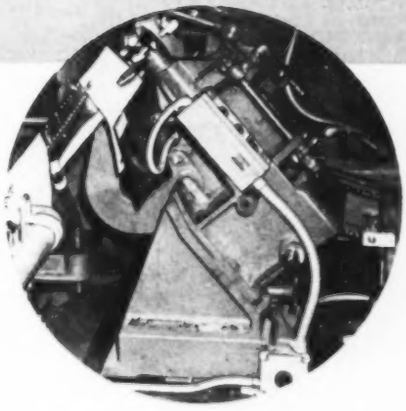
Sheridan builds to achieve high hourly production... not to meet a price!



All Sheridan inserters, stitchers and trimmers are *heavy duty* units . . . not limited "pony" machines . . . not intermediate machines . . . but machines designed and built to deliver consistently high hourly production.

This extra value may mean a slightly higher *initial* investment . . . **BUT** Sheridan equipment *consistently* returns higher profits through a substantially lower cost per thousand books.

Heavy duty construction of all units, with the weight in the *right* places, plus dynamic balancing of rotating parts, eliminates vibration and deflection, the major causes of equipment malfunction. These extra construction values also mean minimum maintenance and longer machine life.



Only Sheridan offers the positive action Sheridan master book caliper for unfailing detection of over or under sized books . . . another extra value feature.

SINCE 1835

SHERIDAN

T. W. & C. B. SHERIDAN COMPANY
220 Church St., New York 13, N. Y.

PRODUCT OF 125 YEARS OF EXPERIENCE 1835-1960

For More Information Circle 157 on Reader Service Card

The units are called Taperweave Curve Conveyors and consist of a wire mesh belt woven to a taper corresponding to the inner and outer radii of the curve. This is claimed to eliminate twisting and turning of the product as it is being conveyed, and minimizes wear of the belt.

Power for the unit is provided by an integral motor or may be transferred from an adjacent unit. Dual side chains carrying cross bars extending through the belt provide the drive for the conveyor. Circle No. 255 on Reader Service Card.

MAGNETIC INK AVAILABLE IN COLORS

California Ink Co. has announced availability of magnetic ink in three different colors which are said to give adequate signal strength. Colors available are red, green and brown and can be used for either letterpress or offset printing. According to the announcement, the inks do not have the brilliance of conventional colored inks. Results, however, were said to be attractive when used in combination with colored paper stock. Circle No. 283 on Reader Service Card.

FLEXOGRAPHIC HALFTONE PLATES COMPOSED OF LINES INSTEAD OF DOTS

Details of flexographic rubber plate halftones composed of varying thicknesses of parallel lines instead of the usual dot formation has been released by Mosstype Corporation and Yoder Engraving Co.

Plates of this type are to be known as the Mosstype-Yoderline. According to the developers, the linear plates have less tendency to trap ink than does conventional plates with the usual dot type of structure. In addition, the plates are claimed to permit deeper etching and molding than is possible with halftone dots. As a result, ink buildup and fill-in is reported to be minimized and frequent washups are nullified.

The line of plates can be made for single color, two color duotone or three color process in either 60 or 85 line density. Circle No. 272 on Reader Service Card.

CARBON PAPER IN ROLLS STOCKED IN STANDARD SIZES

The standardization of an all-purpose type of carbon paper has been announcd by American Carbon Paper Co. The paper is marginally punched, perforated and tab cut and is available in stock rolls. Called Style No. 10, the paper is stated to serve most multiple copy form needs.

Margins are punched corresponding to the punching required for continuous forms and is said to assure positive feeding and alignment during production and use. In addition, No. 10 permits universal stapling either right or left, on the perforated marginal strip, or saddle stapled through tongue position.

The carbon is available in medium black in eight sizes ranging from 8½ in. by 8½ in. to 14⅞ in. by 11 in. Hole diameters are 7/32 in.; ½ in. on centers and are set ¼ in. from edges of paper on both sides. Linear perforations are set ½ in. from edges of paper on both sides. Circle No. 284 on Reader Service Card.

DRY DIAZO COPYING MACHINE

A dry diazo copying machine, designated the Paragon-Revolute Star, has been announced by Paragon-Revolute Div., Charles Bruning Co., Inc. A whiteprinter, the unit is equipped with a 24 in., 42 in., or 54 in. printing width and with 4000, 5000, or 7500 W. lamps. Other features of the machine include: automatic separation, an enclosed roll-stock compartment which holds two 100 yd. rolls, and a speed range of 45 ft. to 75 ft. per min.

The unit has front and rear delivery trays with magnetic stops on the rear tray. Reportedly, an air knife-suction separation picks tracing and print off the cylinder. Circle No. 285 on Reader Service Card.

DUAL HEAD WIRE STITCHING MACHINE

An adjustable, dual head wire stitching machine which makes and inserts two staples simultaneously from coils of wire has been developed by General Staple Co. The unit may be used to fasten materials with thicknesses up to ⅜ in. Heads may be adjusted from 3¾ in. to 9 in. center to center of the staples. The machine is portable and has a throat depth of 10 in.

It is stated that two coils of wire will make approximately 120,000 staples. The wire used is available in 28 round and flat gauges and in standard finishes and colors. Either a foot switch or a microswitch may be used to actuate the machine. Circle No. 286 on Reader Service Card.

9 PT. TYPE FACE AVAILABLE FOR JUSTOWRITER COMPOSITION

A 9 pt. type face called Galvin has been made available for Friden, Incorporated's Justowriter tape operated composing machine. The body size eliminates the need to reduce or enlarge copy which was previously necessary to attain 9 pt. size. The company explained that the new face was designed in this size since many newspaper and magazine publishers desire a 9 pt. size type for setting narrow margin columns. Circle No. 287 on Reader Service Card.

IMPROVEMENTS ANNOUNCED FOR PERF-A-MATIC MACHINERY

Improvements have been made to the Pierce Perf-A-Matic automatic feed rotary perforator, scorer and slitter, according to the manufacturer, Pierce Specialized Equipment Co.

Speed of the machine has been increased to range from 10,000 to 20,000 ft. per hr. according to the announcement. In addition, a delivery guide rail and a spring jogger kit are supplied as standard equipment. The function of the guide rail is to provide better delivery control to long, light weight stock. The jogger kit is said to be beneficial in delivering short, wide stock. Circle No. 288 on Reader Service Card.

IMPROVE PRESSURE SENSITIVE TAPE

Arno Adhesive Tapes, Inc. reports marketing an improved version of its C-610 printer's tape which is used for adhesive labels, advertising stickers and package sealing.

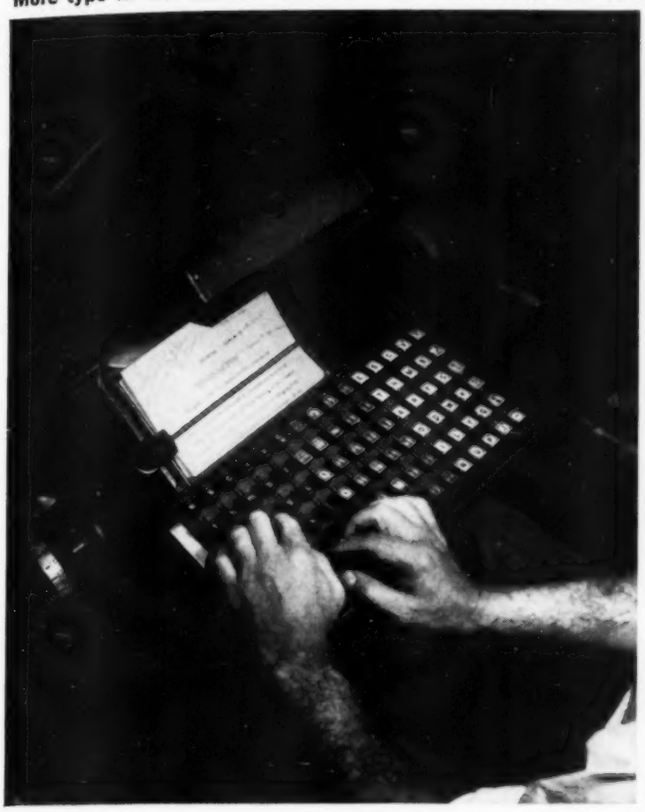
The tape has a white naural rubber adhesive which is said to make it more opaque thus creating better contrast when printed. The adhesive is pressure sensitive and has an adhesion to steel of 25 oz. per in. width. Its adhesion to its own backing is 18 oz. per in. width and tensile strength is 18 lbs. per in. width. The backing material is a white flatback printable paper. Circle No. 299 on Reader Service Card.

MICROMETER GAUGE MEASURES PAPER THICKNESS UP TO 0.5 IN.

A gauge for measuring paper thickness has been marketed by Litho Research, Inc. Correct use of the gauge may prevent weight and paper substance errors in estimating and stock ordering.

The 2 in. dial of the Micromite is calibrated in 0.00025 in. increments. Maximum capacity is 0.5 in. and a ¾ in.

More type in less time at lower cost . . . with FAIRCHILD TELETYPESETTER®



Compare manual linecasting speed with...TTS® tape-perforating speed and see

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If you do not have a TTS® perforator, you can still make this simple test in your own shop:

1. Have a galley of type set manually on your linecasting machine, timing it exactly.
2. Have your secretary type the same copy, line for line on a typewriter, also timing it carefully.
3. Compare the difference in time.

That's all there is to the test, because typing speed is comparable to the speed of perforating tape on the Teletypesetter Perforator—with its typewriter-like keyboard. If the difference surprises you, remember that manual linecasting speed is limited by a number of factors, including the mechanical steps involved, a complex keyboard layout, and a greater number of keys. Typing or perforating speed is not.

Also consider this: Linecasting machines are geared to produce from 7,000 to 14,000 ems per hour. Manual operators can seldom exceed 3,000 ems. But when the linecaster is operated automatically by TTS, the machine continuously operates at its full capacity. This is real economy, because your linecasting machine produces the full amount of type it was built to supply! You eliminate the peaks and valleys of stop-and-go manual operation by the steady, continuous production that is possible only through automatic linecasting.

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The Fairchild Teletypesetter system comprises the TTS Multiface Perforator (above) and the TTS Operating Unit (below) plus an Adapter Keyboard. TTS casts automatically from 5½ to 14 point, up to 30-pica widths, in any type face.

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For More Information Circle 58 on Reader Service Card

throat depth is provided. One complete revolution of the large pointer is equal to 0.05 in.; while the small revolution counter will record to the 0.5 in. capacity. Provision has been made to reset the dial to zero to compensate for temperature changes or other variations. In addition, a chart is provided which shows average dial readings for all types of paper stock. Circle No. 257 on Reader Service Card.

PIN REGISTER SYSTEM USED IN VACUUM CONTACT FRAME

Production of a vacuum contact frame for making halftones has been announced by R. W. Borrowdale Co. The Future-

Foto open face vacuum contact frame, as it is called, is essentially a table on which a vacuum back is mounted. The glass cover usually found on such frames has been eliminated.

A pin register system holds film, mask, contact screen and continuous tone separation in register. Because of the pin register, flashing of the halftone is accomplished by removing the continuous tone separation negative, and flashing through the screen. Additional flash may be given by removing the screen, and replacing the continuous tone separation on the pin register.

Frames are built in several sizes with individual vacuum channels and valves for accommodating various film and screen sizes. Circle No. 254 on Reader Service Card.

ARTIFICIAL GRINDSTONES FOR COPPER GRAVURE CYLINDERS

Copper gravure cylinders may now be ground with artificial grinding stones according to Amsterdam Continental Types & Graphic Equipment, Inc. Produced in West Germany, the Teratolith line, as they are called, are claimed to be free of the impurities and foreign substances sometimes found in natural stone.

The grinding stones are produced in six sizes for various applications. These are: (1) Roughing coarse grain—rough grinds base copper to eliminate turning operations; (2) Coarse grain—grinds etch off engraved cylinders; (3) Medium grain —removes fine details such as halftone shades; (4) Fine grain—prefinishes roller surfaces. Polishing stones are produced in two additional grains designed for extremely fine work. Circle No. 271 on Reader Service Card.

INTRODUCES UNIVERSAL SLITTER

Web Controls Corp. has announced the availability of a Universal slitter for winding and slitting paper, plastic film, ferrous and non-ferrous metals. The unit may be adapted for: Trimming, offset winding, registration and spooling.

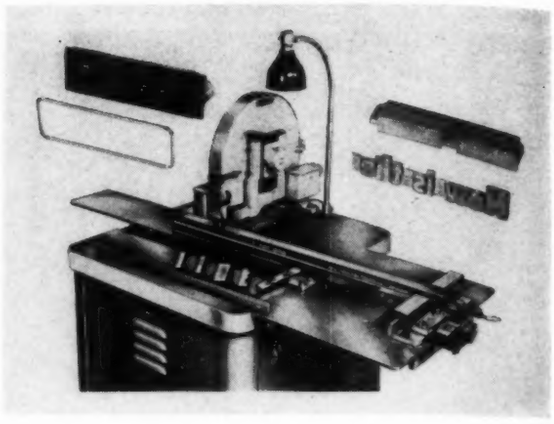
According to the sponsor, a follower on the unwind has been developed for the unit which maintains constant controlled or tapered tension on the rewind. Selection of web tensions is made on a Vernier master control by the operator. The control settings may be adjusted two or three times during processing, depending upon build-up. For small build-ups, however, one setting is said to be all that is required. For automatic control, a follower is attached to the Tachometer generator system.

Various methods of slitting—burst, score, shear and razor blade—may be obtained by interchanging slitting cartridges. Double sheets of web material or single sheets slit into various widths may be wound at constant tension by two rewinds. The rewinds operate independently or simultaneously.

The rewind shafts feature a skewing adjustment, rubber slugs for paper core gripping, or pneumatically expanding arbors, as well as a bayonet lock which is said to provide quick unloading and loading. In most cases rewind and unwind shafts are interchangeable. Electronically controlled variable speeds may be incorporated. The slitter is manufactured in widths from 8 in. to 72 in. Circle No. 290 on Reader Service Card.

FORM TYING UNNECESSARY WITH MAGNETS

Minmetal Magnalock, a magnet said to obviate tying up standing type forms is being distributed by Super Speed Printing Machinery, Inc. Strength of the magnets is claimed to be sufficient enough to hold newspaper and heavy book forms. Magnets are removed by superimposing another magnet, thus interrupting the magnetic field. Circle No. 266 on Reader Service Card.



Rouse band saw strips type slugs and rules to 0.065 in. Maximum length of material which may be stripped is 24 in.

TYPE SLUGS AND RULES STRIPPED TO 0.065 IN. WITH BAND SAW

A band saw which strips type slugs and rules in measures up to 24 in. has been introduced by H. B. Rouse & Co. Primarily designed for newspaper use so that corrections on zinc plates can be handled more easily, the saw will handle several sets of rules at one time in its automatic feed. The material is placed between two metal bars and locked in position. The head of the material is then stripped to 0.065 in. thickness. Circle No. 256 on Reader Service Card.

IMPREGNATED PAPER PROTECTS IDLE PRESSES AGAINST RUST

Cromwell Paper Co. has released details of a paper which is impregnated with a vapor corrosion inhibitor. Called Ferro-

Pak, the paper is suited for covering idle presses and other metal equipment. The paper is claimed to continuously release a vapor which surrounds the object in contact, thus providing protection against rust and corrosion. The manufacturer indicates the paper may be threaded through the press to enclose metal cylinders and other large immovable parts. Circle No. 258 on Reader Service Card.

FINISHING PROCESS FOR CUTTING KNIVES

A new finishing process for paper cutting knives has been developed by Simonds Worden White Co. Known as Mirro-Keen finishing process, the procedure reportedly minimizes knife imperfections that cause ragged, torn edges when paper is cut. In the process, the surface of the blade is said to be finished within approximately 3 micro in. Utica tool steel made by Allegheny Ludlum Steel Corp. is used for making the Mirro-Keen knives. Circle No. 289 on Reader Service Card.

AUTOMATIC PHOTO PROCESSING UNIT FOR FILM OR PAPER MATERIAL

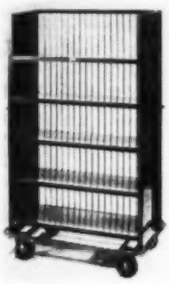
Autotrac Processall, an automatic photo processing unit, has been made available by Oscar Fisher Co., Inc. According to the maker, the machine features nonthread loading of roll film, and the processing of any type film or paper material up to 12 in. wide. In addition, the unit develops, fixes, washes and dries the material.

Film or paper rolls are wound on takeup reels while sheet films are dropped into a basket. Operating speeds up to 9 f.p.m. are reported. Replenishment of the chemicals is claimed to take place automatically, depending upon total area of material processed.

Manufactured of stainless steel, the machine accepts material up to 1000 ft. long. Processing cycle is reported to be seven min. Circle No. 274 on Reader Service Card.

MOBILE RACK CARRIES 1600 LBS.

A mobile stock rack which will accommodate 1600 lbs. of paper or other material has been introduced by Leebaw Manufacturing Co. Rack construction consists of welded unitized steel and features the use of streamlined bends. This is claimed to reduce damaging corners of the material being transported without sacrificing strength.



Five shelves, 17 in. wide and 38 in. long, are angled with the rear of the shelves 1½ in. lower than the front to prevent slippage of paper. Height between shelves is 12 in.

Overall dimensions are 24 in. wide by 43½ in. long and 71 in. high. The rack is equipped with four 6 in. rubber casters, two which remain rigid and two which swivel. Circle No. 291 on Reader Service Card.

OZALID INTRODUCES LINE OF SEMI-DRY SENSITIZED PAPERS

A line of semi-dry diazo sensitized papers has been introduced by the Ozalid Division, General Aniline and Film Corp. The new line was developed for office copying uses and is interchangeable with moist diazo materials. Marketed under the name of Ozafax, the line includes standard weight, 20½ lb. papers in four speeds; lightweight, 17 lb. papers in four speeds; beater dyed papers in six colors and Super Rapid-X speed; an intermediate paper; developers, and corrector solutions. The papers are of the semi-dry developing alkaline type. Circle No. 292 on Reader Service Card.

DIFFUSION TRANSFER NEGATIVE PROCESSED IN SINGLE SOLUTION

A diffusion transfer (photocopy) negative designed to be processed in a single solution in any standard diffusion transfer processor has been developed by Ampto, Incorporated. Called the Ampto projection transfer negative, the new material is said to combine office copying techniques with the Graphic Arts field. An exposed projection transfer negative may be used to make diffusion transfer offset printing plates or other photocopy papers and films.

Pasetups of halftones, line drawings, typed or printed text are said to be transferred directly from the negative to a diffusion transfer offset plate. Circle No. 293 on Reader Service Card.

For More Information Circle 140 on Reader Service Card→

CONTACT SCREEN DESIGNED FOR GRAVURE

Eastman Kodak Co. has announced the availability of a magenta contact screen for photogravure use. The screen is intended primarily for producing hard dot screen positives in color procedures.

The screen provides a lateral dot formation and is used for making intermediate halftone negatives from continuous tone color separated positives. The halftone negative is then used to make the halftone positive. It is claimed by the company that the resulting screen positive contains all retouching and corrections made on the original continuous tone separation positive.

The screens are available in one screen angle, and in various sizes ranging from 8 in. by 10 in. to 29 in. by 29 in.

FILTER FOR COMPRESSED AIR

An air filter called Whirl-Flo Model 5706, designed to protect compressed air operated printing equipment against rust.

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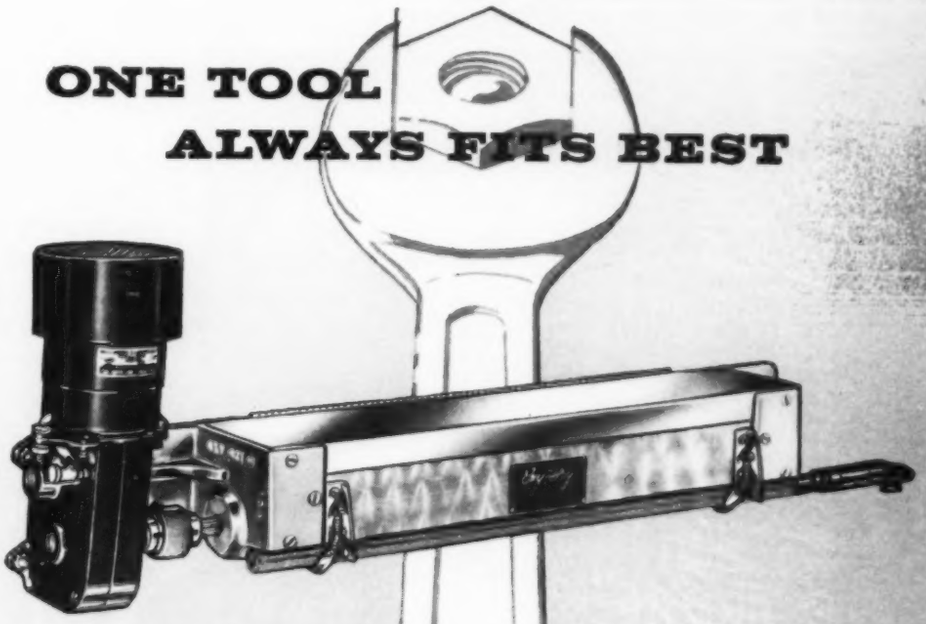
ALWAYS FITS BEST



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- ***No comparison***—there is no other method of ink offset prevention to compare with OXY-DRY...*it is the best!*

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We are not afraid of price—send us the Press Model Number, Maximum Sheet or Web size and LET US DETAIL YOU fully by mail. Our sales-engineers will gladly be there too, if you want a head-to-head, barrel-head deal done! Do it, *don't delay profits!*

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OXY-DRY SPRAYER CORPORATION
NEW YORK CHICAGO SAN FRANCISCO
1134 W. Montrose Avenue, Chicago 13, Illinois—LO 1-1264

oil, dust and contaminating particles as small as five microns, has been manufactured by the Wilkinson Corporation.

As the air enters the filter, centrifugal force causes heavier particles to drop to the bottom. The air then travels through a textile filter cartridge where minute particles are trapped.

The unit is designed to operate with pressure systems up to 250 p.s.i. and a flow of 175 cu. f.p.m. The filter is 11½ in. long and has a diameter of 4½ in. Circle No. 378 on Reader Service Card.

PLATEMAKER IN 28 IN. BY 32 IN. SIZE

nuArc Company, Inc., has announced the addition of a 28 in. by 32 in. platemaker to its Flip-Top line. The model is called F-32 and operates in the same manner as other units in the series. Circle No. 267 on Reader Service Card.

BINDINGS AVAILABLE IN 13 COLORS

Plastic Binding Corp. has furnished information on its line of Plastico bindings. Eleven colors, in addition to gold and silver, in lengths ranging from 1¾ in. to 19¾ in., are available. Bindings are furnished in a variety of gauges: 0.010; 0.015; 0.020; 0.025, and 0.030. The company claims the design of the binding's arch and ½ in. standard punch spacing provides increased strength. Circle No. 276 on Reader Service Card.

TWO HEAD ELECTRIC STAPLER

A two headed electric stapler has been introduced for various packaging and printing applications by the Staplex Company. Designated the Double-Header, the double stapling machine is operated by a solenoid drive.

The stapling action is instantaneous and staples are inserted as rapidly as work can be fed to it. The machine is adjustable for center distance between staples from 2¼ in. to 6½ in. and for depths ranging from ⅛ in. to 3 in. Standard staples are used and the machine may be loaded quickly the manufacturer stated. Circle No. 296 on Reader Service Card.

ADDITIVE FOR PACKAGING INKS

An ink additive which is claimed to provide resistance to abrasion and marring during printing and transit is being marketed by Central Compounding Co. Manufactured primarily for label and carton printers, the additive, called Dexin, mixes with both letterpress and lithographic inks. It is said the additive will not affect tints or colors and can be used to aid in trapping on multicolor printing and varnishing operations. Average use is one or two oz. per lb. Circle No. 297 on Reader Service Card.

KLEEN-STIK ANNOUNCES NEW DISPENSER PACKAGE

Kleen-Stik Products, Inc. has announced a new dispenser package for its two sided adhesive tape. The package contains a pressure sensitive two sided adhesive carried on a release coated carrier strip. The adhesive is rolled on a 3 in. core and the package is scored and die cut which allows the center fold section to form a hand grip. The center fold follows the contour of the core, anchoring it and adding strength to the package.

A serrated metal cutting edge on the dispenser's open top makes the adhesive cut more readily. One side of the package has an oval cut window which serves as an indicator for reordering.

The package has a saddle like cutaway, exposing the roll so that the tape may be rewound should more tape be dispensed than required. In addition, the top has two small flaps that fold down into the package and channels the adhesive strip to the metal cutting edge. It also prevents the leading edge of the tape from falling back against the roll.

An ungummed margin on the side of the strip, called a finger lift edge, facilitates removal of the release paper.

The dispenser package is used for ½ in., ¾ in. and 1 in. two sided adhesives. In these widths, the adhesive is slightly narrower than the release paper thus providing the finger lift edge. Circle No. 298 on Reader Service Card.

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361	362	363	364	365	366	367	368	369	370	371	372	373	374	375

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FRONT PAGE STORY

Corona, N.Y. - In these days of increased costs of newspaper printing production, mechanical superintendents and production heads of stereotype, composing and photoengraving departments as well as press rooms, are unanimously agreed: The only bargain today is quality.

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PRINTING INDUSTRY PATENTS

Covering patents issued July 5, 12, 19 and 26.

All new patents for the printing industry are reported exclusively for PRINTING PRODUCTION by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. PRINTING PRODUCTION is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Composing Room:

COMPOSING APPARATUS

The application for this patent is a continuation-in-part of that originally filed for patent 2,663,232. It provides novel mechanism both for projecting characters to be printed onto a photosensitive medium and for selecting the particular character to be printed. No. 2,944,471 by Jacob H. Drillick, assignor to The Phototypograph Corp.

PHOTO TYPE COMPOSITION

In a phototypesetting system, a method and apparatus is provided for timing the proper instant for the flashing of the light source to select the desired character on the moving matrix with as short an interval of delay as possible and this contributes to higher speed operation of the system. No. 2,944,472 by Frederick J. Hooven and Richard C. O'Brien, assignors to The Harris-Intertype Corp.

PHOTOCOMPOSING MACHINES

Character selection is effected with high precision by the use of a plurality of mirror systems, each having one or more movable mirrors whereby the optical paths from the font are successively divided into groups and sub-groups, until at the final mirror assembly, a single character selection is made. No. 2,946,268 by Louis M. Moyroud, assignor to Graphic Arts Research Foundation, Inc.

Platemaking:

LIGHT INTEGRATOR

The integrator is useful in photolithography, photoengraving and gravure work where the crucial element is the total amount of light striking a photosensitive surface. The integrator uses the charge or discharge of a condenser, the amount of charge or discharge from an initial value of the condenser being an indication of the total light to which the integrator is subjected. No. 2,944,190 by Clarence S. Ost.

PLATECASTING MACHINE

The machine is of the type for casting printing plates of the type in which segmental cylindrical printing plates are cast against papiermache matrices, trimmed to accurate size and exact thickness, properly grooved and beveled for attachment to the cylinders of a printing press and cooled. The design is so compact that one operator can operate the machine. No. 2,944,306 by Paul L. Tollison and Charles L. Ricards, assignors to Wood Newspaper Machinery Corp.

MOTOR CONVEYOR STRIPPER

The invention is directed to the stripping, conveying and unloading apparatus for receiving lithographic plates from the wicket of an oven, conveying the plates to an unloader and stacking them on a removable platform for further transportation. The construction is such that it is free from maintenance expenses over a long period of time. No. 2,944,685 by John J. Nicolazzi.

PLATE LOCATING MECHANISM

For making half size tabloid stereotype printing plates for newspaper work, a full size stereotype plate with two tabloid

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pages is cast, then rows of tension pockets are cut near the lateral edges of the plate. The plate is separated to half size lengthwise and a second row of tension pockets is cut. No. 2,945,284 by Curtis S. Crafts, assignor to Miehle-Goss-Dexter.

PRESENSITIZED PLATE

Patent claims a method of preparing an aluminum base planographic printing plate by treating at least one surface of a sheet of degreased aluminum with an aqueous solution of an acid such as phosphoric and oxalic and then rendering said surface hydrophilic by a subsequent treatment with an aqueous solution of K_2ZrF_6 at elevated temperatures and then applying to the plate an aqueous solution of a light-sensitive diazo compound. No. 2,946,683 by Ibert Mellan and Robert Gumbinner, assignors to Polychrome Corporation.

PLANOGRAPHIC PRINTING PLATES

Invention is based on the discovery that in coatings of polysaccharide carboxy ether compounds, the presence of an oxide of zinc, titanium, magnesium or calcium, or mixtures of these oxides has a pronounced inhibiting effect on the tendency of the coatings to age. No. 2,941,466 by Douglas A. Newman and Allan T. Schlotzhauer, assignors to Columbia Ribbon & Carbon Mfg. Co., Inc.

COATING LITHO PRINTING PLATES

Coatings can be applied to lithographic printing plates with greater uniformity and higher quality by this apparatus which provides for automatically lifting and transporting the plate through a series of coating and drying operations in a closed container. A separate set of lifting and transporting mechanisms are used before and after the coating to avoid contamination of the dried plates. No. 2,941,499 by Ernest R. Gutzmer, assignor to Intercompany Corporation.

COATING COMPOSITION

The coating is applicable as an undercoating to plastic printing plates used in lithography for the production of negatives. The coating increases the dimensional stability of the plastic negative plates and consists of castor oil, benzol, beeswax, turpentine (redistilled) and spar varnish. No. 2,942,995 by Nathan B. Hughes.

Printing Presses:

LINE PRINTING

Closely spaced bands or lines may be printed onto paper webs by means of a number of printing elements characterized by inking the elements while they are widely spaced from one another and then moving the elements close to one another before printing from them. The elements are in the form of rules and are associated with tubes which are capable of sliding one within the other. No. 2,943,566 by Alfred William Simpson, assignor to Rejafix, Limited.

FLEXIBLE ELASTOMER DIE

For either direct or offset printing, this die is made of flexible material and employs a dovetail type mounting body that engages into a dovetail groove but is inserted by rolling the mounting body into the groove. No. 2,943,567 by Ralph A. Pannier, assignor to the Pannier Corporation.

SEAL-OFF ARRANGEMENT FOR UNDERSHOT INK FOUNTAIN

The seal prevents ink leakage during inoperative periods of the press. The seal may be easily adjusted relative to an associated fountain-silencing linkage and may be mounted on existing structures. No. 2,945,437 by Vernon J. Hilgoe, and Carl J. Hermach, assignors to Miehle-Goss-Dexter, Inc.

EMBOSSING PRESS

Leather, paper, and flexible plastics can be embossed by this press which includes a hydraulically operated, flexible diaphragm that is adapted to coact with a rigid, electrically heated die. No. 2,944,481 by Gilbert C. De Malvilain.

MULTI-UNIT PRINTING PRESS DRIVE

For newspaper work, this electric drive system is designed to facilitate and simplify the selective control of a press and it may be operated from a central loca-

Walter A. Metz, foreman of the Patriot-Evening News Engraving Department, says, "We are using the Imperial Vitaplate-VitasolV powderless etching team for over 50,000 line and halftone engravings annually. Our line etchings run from a depth of .036 to .042, eliminating all routing."

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tion, such as a superintendent's room. Setup and maintenance costs are also minimized. No. 2,944,644 by Find Sandgren and Terrence Gizeski, assignors to Electric Eye Equipment Co.

OFFSET PRINTING PRESS

In a press which includes cylindrical printing formes, blanket cylinders and an impression cylinder, at least one blanket cylinder being in contact with two cylindrical printing formes, this invention provides two blanket cylinders positioned diametrically opposite to one another in relation to the impression cylinders. When each of the blanket cylinders is in contact with two formes, the press may consequently be used for printing with four colors. No. 2,944,482 by Claes Aller, assignor to Carl Aller Establissement A/S.

PLATE LOCKING MECHANISM

A feature of this mechanism which is related to the structure of patent 2,474,127, is the provision of power actuated controls for effecting the lockup of the plates, so designed that the cylinder must be in proper position before the plates can be released and the press motor cannot be again started until the lock-up is effected. No. 2,945,438 by Charles L. Ricards, Paul L. Tollison, Leonard R. Campbell, and Sam Oderman, assignors to Wood Newspaper Machinery Corp.

PATENT SEARCHES

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, write

INVENTION, INC.
Munsey Bldg., Washington, D. C.

REVERSING GEAR DRIVES

The drive is designed for use with printing units incorporating two printing couples and to prevent engaging the wrong elements. This is accomplished by the use of external and internal spline teeth meshing with an annular coupling which is axially slidable between engaging and disengaging positions. No. 2,946,230 by Charles A. Harless, and Andrew R. Hegeman, assignors to R. Hoe & Co., Inc.

COUNTING AND DISPLACING DEVICE FOR DELIVERY

For use with a rotary fly mechanism for handling printed newspapers, this counter and displacing apparatus uses a solenoid operated kicking foot which is positioned forwardly of the rotary fly to displace a predetermined number of sheets as they are delivered. The counter is actuated directly in response to the rotation of the rotary fly. No. 2,946,266 by Merle J. Collingwood and Albert C. Chagnot.

PRINTING PLATE LOCKUP

The lockup of relatively thin plates such as are used in offset printing is effected by providing clamps which are adapted to be screw attached to the ends of the plates and then inserted in wedging relation into rounded gaps provided in the press. No. 2,946,282 by Charles A. Harless, assignor to R. Hoe & Co., Inc.

Printing Inks:

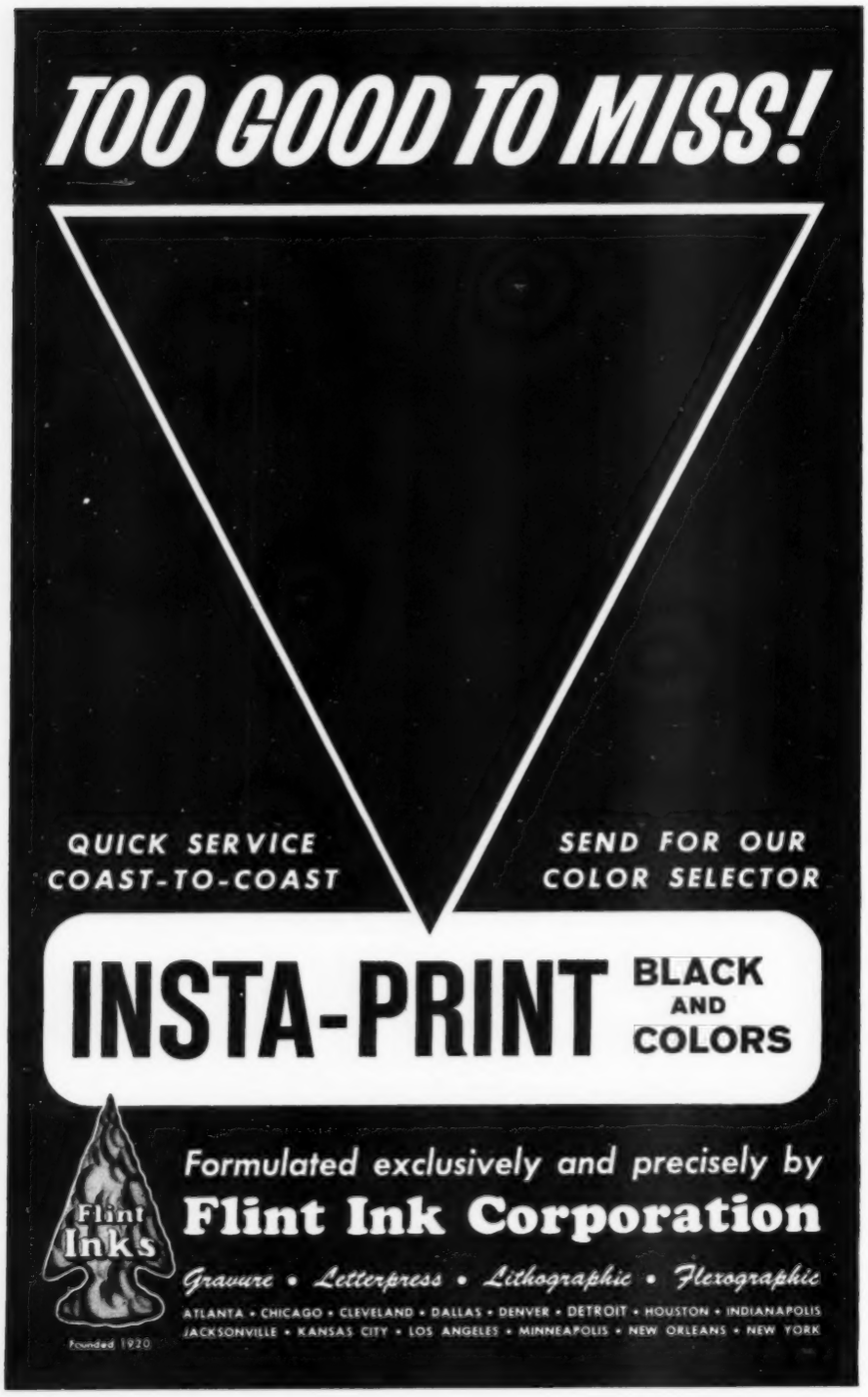
COMPOSITION FOR INKS

For use in printing inks, the composition may comprise a homopolymer of vinyl pyrrolidone having a K value of from 15 to 100 and dinonyl phenol in the ratio of 1 part of dinonyl phenol per part of polymer. No. 2,941,980 by Gerald Robinson, assignor to General Aniline & Film Corp.

Feeding, Folding, Delivery:

SHEET DELIVERY SLOWDOWN

The device is related to the art of patents 2,657,042 and 2,130,841. Slow down is effected on sheets being fed by grippers, adapted to grip the forward edges of the sheet, by the provision of suction cups placed at the trailing edges of the sheets. The slow down movement is synchronized with the gripper movement. No. 2,942,878 by Victor N. Yingling, and Howard J. Seel, assignors to Harris-Intertype Corp.



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SHEET FEEDING MECHANISM

Sheets are fed from a stack regardless of the method of their accumulation by this mechanism which incorporates an arrangement of suction cups whereby suction is first applied on top sides of the sheets to lift and forward each sheet and additional suction is used underneath the sheets to control their travel. No. 2,946,589 by Murray Spiro and George Neimeth.

PAPER MACHINERY

This machine is designed for use as an auxiliary drive to be used with the non-automatic mechanism of patent 2,828,926 and will convert the winder to automatic operation accompanied by adequate assurance for a proper automatic sequence of operation during roll changing. No. 2,943,806 by Richard W. Phelps, assignor to The Black-Clawson Co.

TENSION CONTROL APPARATUS

This control circuit is devised for an electromagnetic clutch apparatus which aims to overcome the deficiencies of prior control circuits for controlling the tension of a web in a winding or unwinding operation. It includes a correcting signal which is proportional in magnitude to the error and to the rate of increase or decrease thereof. No. 2,943,809 by Roscoe H. Garrett, assignor to Eaton Manufacturing Co.

Binding, Cutting, Perforating:

STITCHER TRIMMER CONTROL

Signatures to be trimmed are handled so as to avoid bounce-back from the stop and to assure flattening of the signatures just before they are trimmed. A pair of squeeze rollers holds the signatures flat. The device is adjustable so that signatures of varying thicknesses can be accommodated. No. 2,944,456 by Robert J. Christiansen, Rudolph J. Nevsimal, and Harold F. Volkert, assignors to F. N. Volkert & Co.

CUTTING MACHINE AND TABLE

The apparatus is of the type disclosed in patent 2,771,948 and features the use of a plurality of ports in the cutting table surface spaced a few inches apart. Each port is provided with a valve operator element that protrudes slightly above the table surface. When a stack of paper is on table, the weight of same is sufficient to press down on the operator elements so as to cause egress of air from the ports to slide or maneuver the stack with relation to a cutting blade. No. 2,945,600 by Carl Thumim, assignor to E. P. Lawson Co., Inc.

BOOK JACKET APPLICATOR

For applying dust jackets to books, this apparatus takes the form of a board or other flat base which affords a smooth work surface of appropriate size to accommodate book covers and books of the sizes normally used. The base has an elongated clamp hinged at one edge and extended longitudinally thereof, and guide markings are provided on one edge to serve as measuring references and folding guides. No. 2,943,336 by Neilon Barrett, and Chester A. Grant, assignors to Gaylord Bros., Inc.

DRIVE FOR CUTTER KNIVES

The drive effects a pull at both ends of a knife in unison at a proportional rate to eliminate wobbling of the knife bar in a vertical plane and to produce smooth cutting results. This is accomplished by a crank pin for pulling each pull bar, the crank pins being of different fixed length to provide a proportional rate of pull on respective bars and being driven by gears of identical size at the same angular rate. No. 2,943,506 by Carl Thumim, assignor to E. P. Lawson Co., Inc.

Miscellaneous:

SPRAYING DEVICE

For coating a printed sheet with wax to protect the printing from damage by abrasion, this spraying device is operated by a siphon principle, the siphon being mounted adjacent a wax container and adapted to withdraw liquid in response to the passage of compressed air. The container is open and may contain a plurality of siphon heads. No. 2,943,795 by James G. Yahnke.

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Viscosity 650 sec/100° F.
Rust and corrosion resistant. For vacuum air pump, oil pump, hand oiling. No soap or foamy detergents.
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Viscosity 120 sec/210° F.
For vacuum air pump, feeder head, drives, gears, all press lubrication requiring SAE 60 oil. Rust inhibited, over 90 V.I., high load resistance.
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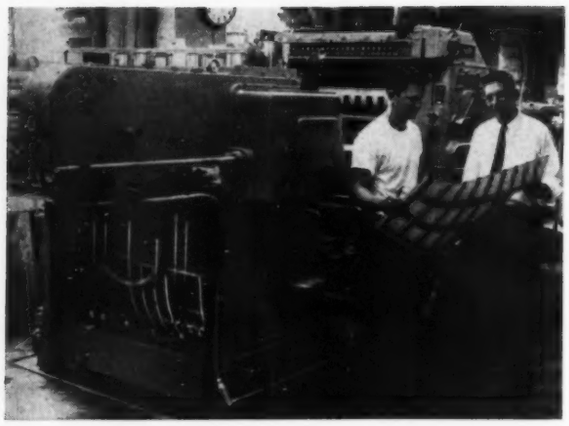

Chicago Firm Installs Miehle—Gregg-Moore Lithographing Co., Chicago, recently completed installation of its second Miehle No. 38 two color offset press. Shown examining a sheet from the new press are, left to right, Donald J. Feilen, pressman, and Arthur L. Moore, vice president.

Duplicate Plate Improvements

(Continued from Page 54)

newspaper publishing field.

Larson continued: "Introduction of high speed curved plate casting machines for electrotypes and stereotypes has almost eliminated color register problems in conventional plates and in the new plastic backed plates. New tension lockup systems hold the plates in register indefinitely and allow for completely unrestricted printing areas.

"Available are electrotypes which may have any amount of pre-makeready manufactured into the plate by the electrotyper."

Among his concluding comments, the speaker said that members of his association ". . . are determined to produce not only the finest duplicate printing plates obtainable, but to expand where feasible. They will produce such plates as will be needed for the new wrap-around letterpress units or to meet any other process development promptly."

Control of Paper

(Continued from Page 61)

cessible. If necessary, rolls identified with a later lot number will be moved to gain access to rolls in an older lot number.

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MATRIX CONTRAST SERVICE

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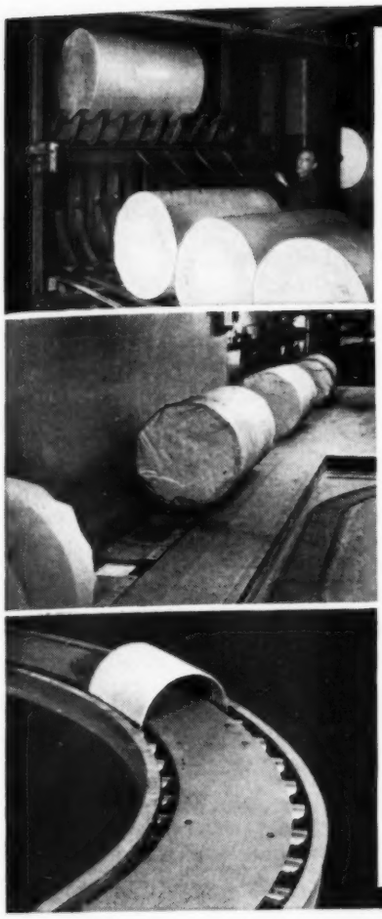

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Pleasing Litho Color

(Continued from Page 68)

justed with yellow or magenta CC filters.

Having determined the most acceptable highlight and shadow steps on the gray scale, their corresponding densities on the gray scale of the continuous tone separation negative is read on a densitometer. The densities recorded were as follows.

Highlight dot step	.25
Shadow dot step	1.40
Density range covered	1.15

This means that an exposure without the use of either yellow or magenta filters covered a range of 1.15. But the separation negatives are balanced at a density range of 1.40. So the scale must be extended from 1.15 to 1.40. To accommodate this range, we will have to expose the cyan separation negative through a Wratten CC-50Y filter. The filter is placed in the exposing lamp aperture.

CC yellow and magenta filters are available in different density values and are identified by numbers such as CC 10-M, CC 20-M, CC 10-Y or CC 20-Y and so on. To estimate how much the scale will be lengthened by a yellow CC filter, the peak density of the CC filter is divided by 2.

The use of a filter involves a change in exposure and this change is determined not by the color of the filter but by its density. At this point the use of the Kodak Graphic Arts Exposure Computer is highly recommended. The 0 point on the density scale of the computer is set against the exposure which was given without any filter, *i.e.*, 12 sec. The new exposure is read off as follows on the computer:

Value of filters	Read against density
10	0.05
20	0.10
30	0.15
40	0.20

The correct exposure for the cyan printer in this instance was 22 sec., using CC 50-Y filter and covered the density range of 1.40. The same exposure is given for exposing magenta and yellow screen positives as all three have been balanced at the same density range.

After all the three screen positives have been processed properly, a careful quality check is made before they are sent to the stripping and platemaking department.

NEXT MONTH: *The points related to quality check and standardization in printing ink values will be covered in the concluding article of this three-part series.*

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ADDRESS_____

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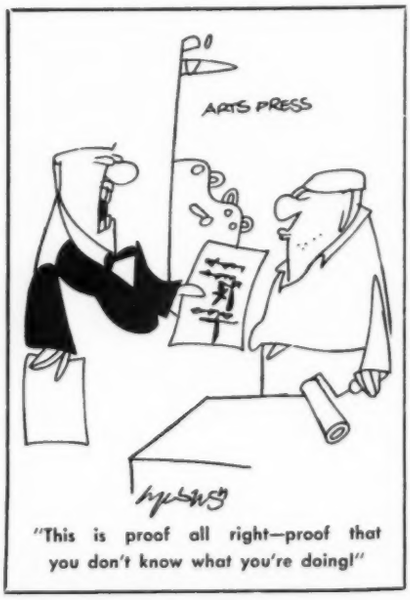


"This is proof all right—proof that you don't know what you're doing!"

British and French Printing

(Continued from Page 48)

Mail, over 2 million, and the *Times*, about 1 million.

Most of the London nationals are equipped to produce ROP color; but little color, if any, is being used. The Liverpool *Post* pioneered newspaper color printing in Great Britain, but because of little acceptance on the part of advertisers has temporarily dropped the project. Some think that the labor situation is the biggest deterrent to ROP color use.

This is certainly a factor when you must consider it requires extra pressmen under the union manning agreement for every additional color used. Other reasons may be the labor shortage, long press runs, high page ad cost ($7000 for black only), three month waiting list for advertisers, and wage payment for compositors based upon a piece work system.

Electronic engraving has received favorable acceptance in Great Britain. Nearly all the London newspapers are equipped with machines of this type as well as some of the commercial engraving houses.

As in America, British and French printers show interest in and scattered acceptance of the wrap-around printing technique. Some British photoengravers have closely examined this new field, but first want to know what printers want before proceeding farther. A new wrap-around plate development was announced during my visit (see story on page 59). The French - made Elby press (38 in. by 54 in.) will accommodate plastic and rubber wrap-around plates and is being used on some magazine work.

Although the printing equipment manufacturers are producing at maximum to meet increased sales, most machinery in the plants of these countries is obsolete by U. S. standards. There are many reasons for this—the war, low capital investment, and an inherent nature to get more out of any machine than an American would be accustomed to.

Printing Exhibition Dilemma

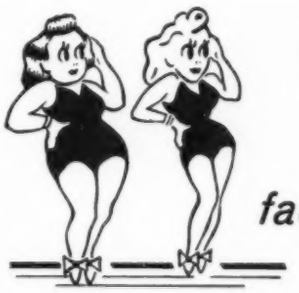
One of America's current industry problems—that of the frequency of Graphic Arts expositions—repeats itself in Europe. This is to be resolved by the European Committee of Printing and Paper Manufacturers, but scattered dissident groups make it appear that any decision reached will not be unanimous.

The next show which has this committee's approval will be held in Dusseldorf, Germany, in 1962, followed by a London exhibition of printing equipment in July of 1963. Beginning in 1965 the committee hopes the manufacturers and supply agents will agree to a rotative schedule of holding exhibitions on an every other year basis. These would be confined to the cities of Milan, Paris, Dusseldorf and London, in that order.

Interview with Letouzey

LETOUZEY

One of my most interesting interviews in France was with one of the acknowledged Graphic Arts authorities of our time, Victor Letouzey, technologist and consultant. Now



STARNEWS
is an easy reading face . . . and it's narrower!

STARNEWS in the 8 point size, is designed to give the same letter count on the popular narrower (11 picas) column width as you now get in the wider column. Its letter count will result in a saving of about 6% over many 8 point news faces without sacrificing readability.

This legible face is intended for use on slug casting machines operating either manually or from tape and was designed for text composition in news, publication and pamphlet work. STARNEWS is available in 8 point Roman with Bold Face or Gothic.

Write for the new STARNEWS specimen folder today

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ABCDEFGHIJKLMNOPQRSTUVWXYZ	ABCDEFGHIJKLMNOPQRSTUVWXYZ
ABCDEFGHIJKLMNOPQRSTUVWXYZ	**ABCDEFGHIJKLMNOPQRSTUVWXYZ**
abcdefghijklmnopqrstuvwxyz 1234567890	abcdefghijklmnopqrstuvwxyz 1234567890
abcdefghijklmnopqrstuvwxyz 1234567890	**abcdefghijklmnopqrstuvwxyz 1234567890**
fiflffffiffl ⅛¼⅜½⅝¾⅞	fiflffffiffl ⅛¼⅜½⅝¾⅞
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8☆A311—runs in 90 channel magazine.	8☆A313—runs in 90 channel magazine.
Lower case alphabet.....110.6 pts.	Lower case alphabet.....110.6 pts.
Lower case characters per pica.. 3.05	Lower case characters per pica.. 3.05
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For More Information Circle 168 on Reader Service Card

78 years old, Letouzey is still very much interested in the future of the printing processes. He believes that more research and education are needed in the Graphic Arts and to this end devotes part of his time to teaching in a Paris technical college.

Letouzey looks ahead to the 1970s and insists that the future of printing is in a marriage of the different processes. No single one will stamp out the other. Specifically, he said letterpress must use the wrap-around system and noted that inking would be the biggest problem of this technique; offset must accustom itself to using very little water for best results, and gravure must become more of a technical process and less of a craft.

The greatest need in printing, he believes, is for young men who will bring new thinking into the industry. Letouzey, a technologist turned educator, is teaching his students to think about future processes rather than accept the methods presently being used in the industry.

When I asked about the needs of the printing industries of Great Britain and France, the answers received varied with the person asked and his line of business. One British executive suggested that his country needed a depression in order to scare labor back into line. Another felt that we should stop getting the industry excited about new machines and processes when there is little likelihood they can be adopted immediately. He thought it was dangerous to tell everything to people in the industry.

Some answered in a more constructive manner. A need for trained and better trained people in both countries is one of the most pressing requirements. British printers, one industry spokesman said, want better designed and faster presses. The "better design" presumably meaning a press that will give better control of quality—one of the areas of prime importance at the moment. Faster presses would alleviate some of the heavy production demands recently imposed upon printing businesses.

The French printer is in need of better paper if he hopes to achieve higher quality in his work. This has been asked for, according to one production man, but the papermaking industry of that country apparently is in such an independent position that it can ignore such requests.

Offset Will Begin a Climb

The future of printing in both countries will closely parallel what has happened or is happening in the United States. Offset will continue its growth, but probably at a slower, more steady pace than it has here. Fast climbs or spurts are unlikely because of lack of capital on the part of many printers and the acute manpower shortage. One qualified individual, however, forecasts that offset volume will eventually surpass letterpress in France.

The letterpress industry of each country will adopt the wrap-around printing technique at about the same time that it will be accepted in the United States. Printers are waiting for a greater range of press sizes and for more photoengravers to become accustomed to making wrap-around plates.

Photocomposition is still a long way from being accepted—"at least

but Empire makes more TOP than anyone else!

Year after year, for more than twenty years, Empire Laboratories' continuous research and development has provided the industry with photoengraving enamels which permit maximum utilization of new methods, metals and machines.

Empire Special Top — Empire Hot Top — Empire Cold Top — . . . selected over all others for TOP performance and highest quality.

Ask your EMPIRE graphic arts dealer for informative booklets on these outstanding enamel tops or write —

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509 West 56th Street New York City • Laboratories: Closter, N. J.

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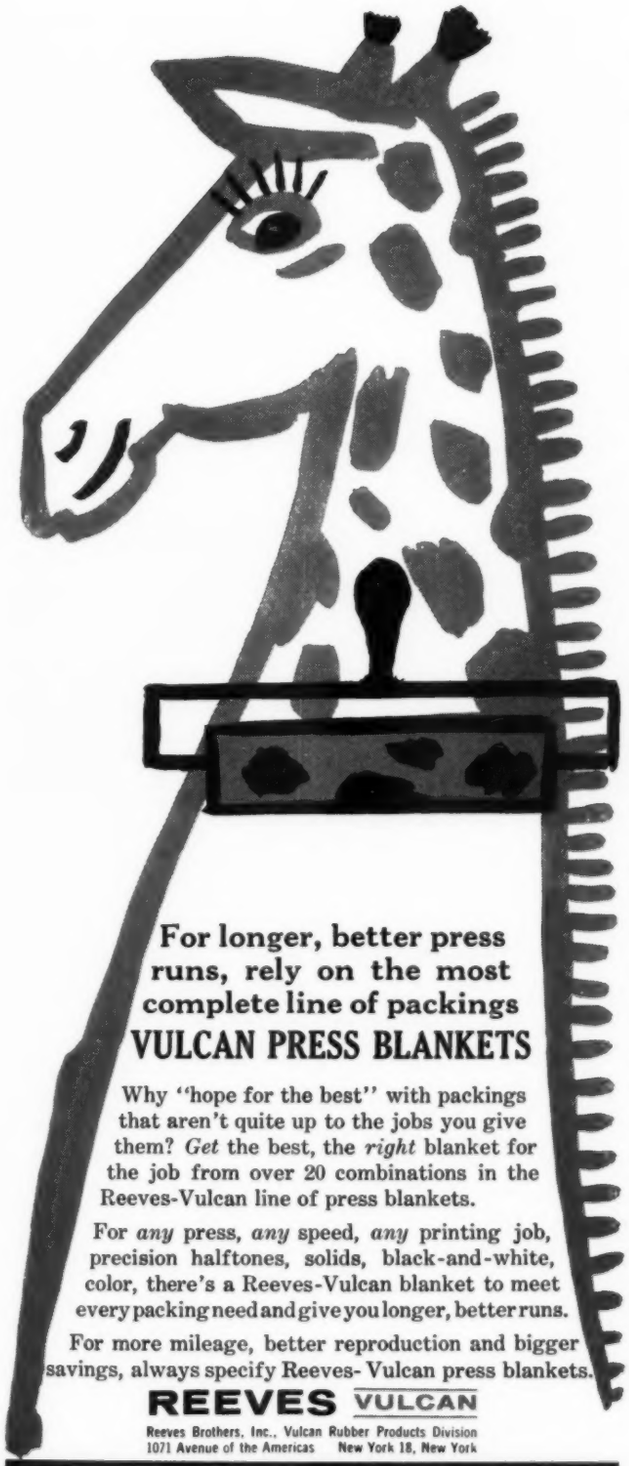

For longer, better press runs, rely on the most complete line of packings

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Why "hope for the best" with packings that aren't quite up to the jobs you give them? *Get* the best, the *right* blanket for the job from over 20 combinations in the Reeves-Vulcan line of press blankets.

For *any* press, *any* speed, *any* printing job, precision halftones, solids, black-and-white, color, there's a Reeves-Vulcan blanket to meet every packing need and give you longer, better runs.

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#67 Non Felt (Top)				X			X	X
#79 E.D. (Drawsheet)		X						
#77 Draw Sheet	X	X						
#76 Cork (Unders)			X	X	X	X	X	X
#62A (Synthetic Unders)			X	X	X	X	X	
#63A Foundation			X	X	X	X	X	
Other Thicknesses on Special Orders								

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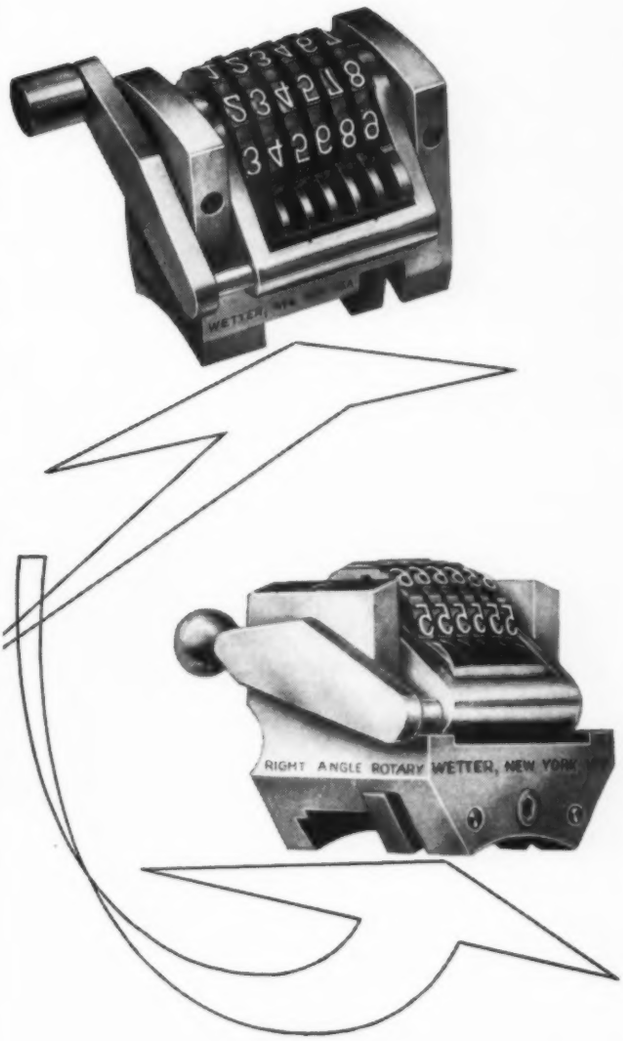

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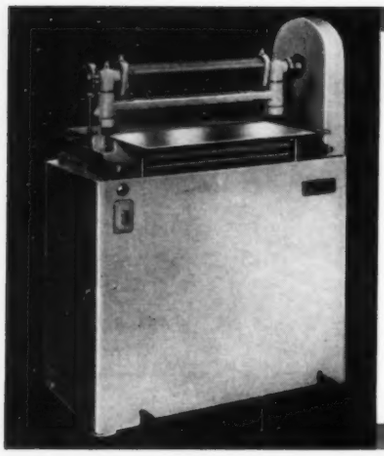

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Heavy duty shear cuts and trims electrotypes, stereotypes, copper, zinc, and plastic plates up to 24" wide.

Accurate and fast. No burr edge . . . no filing . . . safer than saw . . . no flying chips. Positive, non-repeating safety-clutch can only be operated intentionally. Provides maximum protection. Lowers insurance rate. Write today for descriptve folder and price.

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20 years," according to one individual. Printers are still hot metal-minded, and trade composition plants and newspapers do not have the complex copy to set which lends itself so well to photocomposition. High cost of the machines also rules out any large scale acceptance in the immediate future.

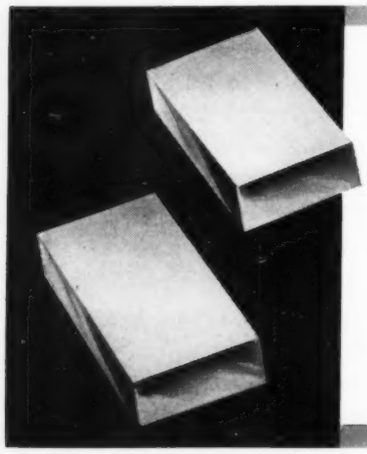
Must Depend on Men

Great Britain and France are restless and ambitious. They want to move ahead, but this movement must come from men rather than machines. This will require new thinking and changes of attitude on the importance of the individual. It must also be a mutual transition rather than only on the part of management or labor.

This resurgence will be felt on both sides of the Atlantic. Faster communications and transportation at this point in the century are bringing a closer relationship among all people. We must know and understand what printers of these countries are doing and how it may affect American Graphic Arts.

Rotogravure Executives Visit Goss—Executives and supervisory personnel of Chicago Rotoprint, Sub. of W. F. Hall Printing Co., recently visited the Chicago plant of Goss Company to inspect a 12 unit rotogravure press prior to its shipment to Rotoprint. Left to right, first row: Wayne Marcoullier, Goss; and Rotoprint's Joseph Schierer, press foreman: William Carey, staff engineer, and Harry Smock, vice president. Second row: Arthur Meadowcroft, mechanical superintendent; Adolph Kotlarz, press foreman; Wallace Wilkerson, press superintendent; Edward F. Muhl, vice president, and Casimir Suberlak, press foreman, all of Rotoprint.

It is true, as one spokesman put it, that it is not always possible to transplant techniques or processes from one country to another. But basics are universal and can be applied to fulfill the required need. The U. S. printer can no longer afford to be complacent and believe that everything he does and needs is American-made or developed. The technological progress of other countries will have a major bearing on his present and future production capabilities.



MAGNESIUM BASE

● Ideal newspaper base. One-sixth the weight of old-style base. Precision finished to .001" in height. Any height or size. Larger sizes make perfect, light-weight proof press beds and molding slabs. Inexpensive, too.

Write for usable free sample and prices

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ADVANCE ANNOUNCEMENT

. . . a new concept in type-high numbering machines by ROBERTS

(Since 1889)

Roberts engineers, after many months of development and testing, have perfected a new and different version of the traditional type-high numbering machine which is virtually a stock item with flatbed printers around the world.

The new Roberts device will embody changes (for which patents are pending) that greatly simplify the unit and result in important economies.

While not yet tooled for full production, you can see first models of the new unit at Roberts' Booth 42, Printing Industry of America Exhibit, Sheraton Park Hotel, Washington, D. C., October 24-28 inclusive. For free tickets write Roberts Numbering Machine Division, Heller Roberts Manufacturing Corp., 700 Jamaica Ave., Brooklyn 8, N. Y.

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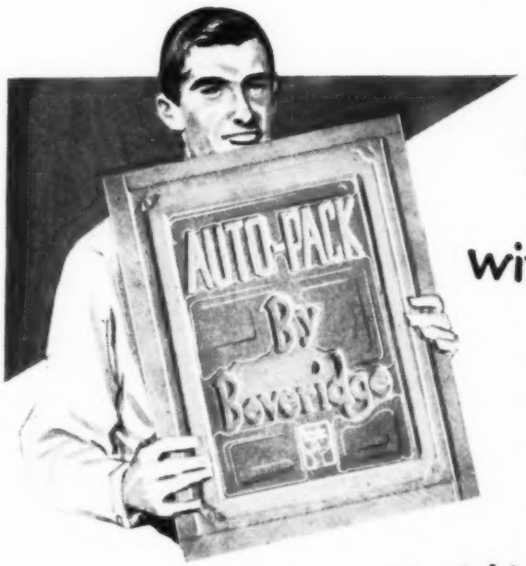

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NEW AUTO-PACK MATS

with these features....

- one piece packless mat
- 50% compressible
- molding pressure same as standard mats
- retains 0.030 to 0.035 space depth from 0.040 form depth
- easier to use than conventional mats
- proved efficiency in hundreds of field tests

You're Sure to End Up with...

OUTSTANDING REPRODUCTION PLATES

Write today for complete information, samples or demonstration.

THE BEVERIDGE PAPER COMPANY

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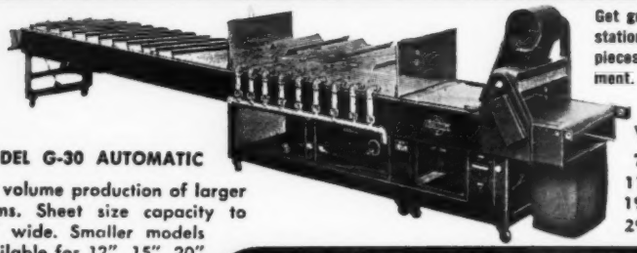
RAISED PRINTING IS HIGHLY PROFITABLE BUSINESS



MODEL G-30 AUTOMATIC

For volume production of larger forms. Sheet size capacity to 30" wide. Smaller models available for 12", 15", 20" sheet widths.

Get greater returns from your present printing presses. Social and business stationery, advertising folders, box wraps, greeting cards and other decorative pieces have "eye-appeal" when produced with Virkotype raised printing equipment.

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THE WORLD'S LARGEST MANUFACTURER OF MACHINES, COMPOUNDS AND INKS FOR RAISED PRINTING

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Camera Magic in Plates

(Continued from Page 74)

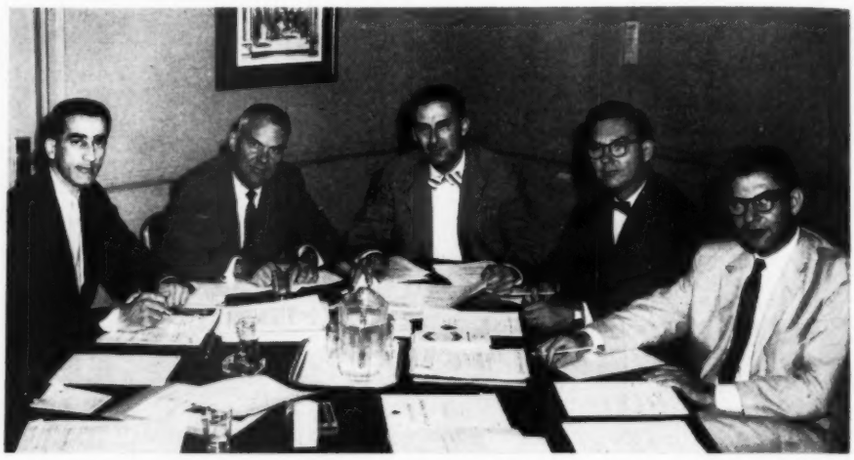
be painted dark slate or black.

Someone from the floor wanted to know if the day will come when film manufacturers will standardize on film base for color reproduction work. In answer to the query, Halpern said he thought that day is now here. He added that any major improvement in equipment or process material takes years to become universal.

Glass vs. Contact Screens

Some comment was made regarding the use of glass and contact screens. One answer is that for color art reproduction (for the dot worshiper) the glass screen is best. For all practical printing the contact screen is best.

The question came up regarding which makes the best copy for three or four color process work. Comment from the platform was that the transparency should be considered best if well exposed and not too dense. Reflection copy (such as water color, oil or tempera) usually makes exacting copy to reproduce. Third choice was color prints. Each of these three types of copy requires different handling. The questioner on the floor was advised to standardize handling techniques on these three types of copy. He was told that no great difficulty will be encountered if these procedures were followed.



Top Junior Achievement Printing Company Selected—The JAWCO Printing Co., Nashville, Tenn., sponsored by Williams Printing Co., has been chosen the top Junior Achievement printing company in the nation. The selection was made by the J. A. committee of the Education Council of the Graphic Arts Industry whose members are, left to right: Haige Garabedian, Printing Industry Assn. of Connecticut and Western Massachusetts; Charles Weber, R. R. Donnelley and Sons Co., Chicago, chairman; Hugh B. Sweeny, Junior Achievement; James Stuart, Jr., McCall Corporation, Dayton, O., and Samuel M. Burt, Education Council.

HEADQUARTERS FOR MODERN PLATE EQUIPMENT

Richards

Saw Trimmers
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J. A. RICHARDS CO.
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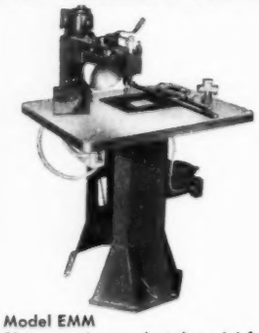
• FOR STEREOTYPERS • ELECTROTYPERS • ENGRAVERS

Model ESST
Electromatic Plate Saw for stereo's and electro's, heavy duty construction at a medium price.



Model EMM
Plate mortiser pedestal model for the big daily and commercial plant. Full page capacity.

Model BJRM-2
Plate Mortiser
Heavy Duty Jig Mortiser

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Engineering

Services for the GRAPHIC ARTS

Based upon a knowledge of printing requirements

Layout, design, construction supervision for

New plants—Alterations
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CHAS. T. MAIN, INC.

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Photomechanics and Printing

By J. S. Mertle and Gordon L. Monsen

Two authorities have pooled their knowledge in producing a technical book to cover every phase of platemaking and presswork in Graphic Arts reproduction processes.

Valuable source of information for all printing plant and production managers, superintendents and departmental foremen.

Covered are photomechanical platemaking and printing processes for photoengraving, offset, gravure and silk screen, as well as a history of papermaking.

In the U. S. and Canada
$15.25 Postpaid
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FORM-O-VAC

STEREOTYPERS' MATRIX VACUUM FORMER and DRYER

- Pre-treat the matrix
- Give full shrinkage on pack and no-pack mats.
- Prepare matrix for casting in one operation.

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Powderless Copper Etch

(Continued from Page 49)

lines should be no more than 0.0005 in. per side at depth of 0.020 in. Laboratory tests show this additive meets these requirements in commercially available etching machines.

To get the full value from powderless copper etching, the halftone negatives must be shot with a full range of tone. This is needed especially in the delicate highlight areas. Because the average high negative usually has a washed-out look (be it letterpress or offset) the photographer must be especially careful to preserve the full highlight range.

Electronically scanned negatives and powderless copper etching combine to make color process platemaking a simpler and surer way to produce facsimile results. This new etching method combined with dot etching on screened positives helps to simplify color etching and is invaluable in producing vignettes. The extra depth of the very fine highlight dot along the edge of the vignette does help considerably in avoiding the hard edge that develops, because of insufficient press makeready.

Copper etchings have been used for intaglio printing of wedding invitations, business cards and letterheads. They do not replace steel engravings, except in short run work. Nor have copper etchings duplicated steel for quality because of the lateral etch of the copper. This lateral etch has caused the copper engraving to print heavier than its steel counterpart. However, with the use of powderless copper etching and retention of the fine line image, the quality should be identical to steel.

Steel Engraving Replacement

In long runs, steel engravings have been a must because of steel's abrasive resistance. Beryllium copper has the abrasive resistance of the steel used for engraving and etched very well for us in what you might call a one-shot experiment. If this should hold true in practice, the powderless copper etching method and beryllium copper could be an economical replacement for steel engraving.

The advertiser who must depend on the letterpress industry for delivery of his message can feel certain that the engraver who is spending many dollars and many hours in research is aiming for the ultimate in relief printing plates. One of the most important phases of this process is the use of controls to avoid human error and thereby produce a superior product in less time.

The photoengraving industry must hold the line on the price of its product. The best way to do that is to spend money on better methods.

An advertiser may have two engravers supplying him. He uses both, because he has two nice guys calling on him. Also he believes that by looking at the proofs, one engraver is as good as the other. He should investigate the production methods of both. He then should give the majority of his work to the one who is putting forth the effort to guarantee that the quality of the proof will be duplicated in printing.

This effort comes only through constant investigation of new methods and conscientious efforts. The photoengraver must realize that the superiority of his individual product is the best insurance for his security.

1st of 6

Glomail General Strapping Underwrap Machines

to be delivered to a prominent daily newspaper

Full details of Glomail General Strapping Underwrap, Topwrap, In-line Feeder and Tying Machines furnished on request to...

GENERAL STRAPPING CORPORATION

100 Park Avenue,
New York 17, New York

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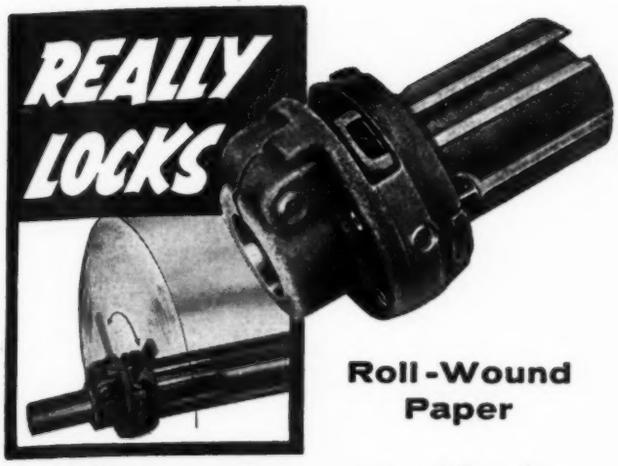

Roll-Wound Paper

Efficiency Expansion Chucks

In one operation, lever the cam and lock it. It won't slip —ever. Unwind, rewind, or brake easily. There are efficiency expansion chucks for either fibre or steel cores up to ten inches in diameter—for shafts of 1" to 3½" in diameter in graduations of 1/16".

Chucks are inter-changeable—no rights or lefts. Give years of service—made of malleable high strength castings. Surfaces which contact core are precision machined. Lever action applies powerful force to the expansion jaws. Ribbed jaws bite firmly into core, eliminating core slippage when starting or changing speeds, even under extreme brake tension.

Write for the full time and money saving facts to—

VALLEY MFG. CO. Valley, Nebraska

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of PASTE-UPS
MAKE-UPS
MECHANICALS
AND LAYOUTS

Over 4 times faster than old-fashioned pasting and cementing methods.

POTDEVIN

ADHESIVE WAX Coating Machines

For cold type processing. Automatically applies a pressure-sensitive wax coating to all pieces that go into a mechanical.

Machines of all sizes—from a style for one-man use to mass production needs. Write for literature.

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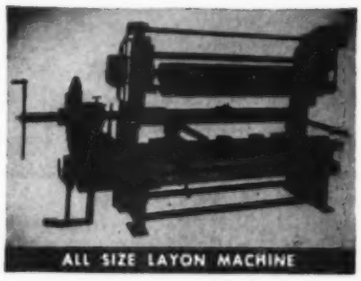
Hairline Register

CAN BE OBTAINED WITH A

STANDARD PROCESS
GRAVURE LAYON MACHINE

CLOSEST ACCURACY AT YOUR FINGERTIPS

Now, transfer in PERFECT REGISTER any given layout to any number of gravure cylinders. EXCLUSIVE METHOD of micro adjustments lock the cylinder in the machine with PRECISION EXACTNESS both circumferentially and horizontally.



ALL SIZE LAYON MACHINE

STANDARD PROCESS CORPORATION

Manufacturing Gravure Equipment and Supplies

2704 WEST ROSCOE STREET
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AIR LOADED — POSITIVE LOCKING

AERO-SHAFT

SAVES TIME . . . SAVES MONEY

The pneumatic Aero-Shaft holds any core firmly providing uniform tension that allows faster roll speeds.

Aero-Shaft eliminates core damage . . . deflates instantly for split-second removal from used to new core.

Double expanding rib section available for web widths over 40". Write today. Start saving with Aero-Shaft!

Folders, Rewinders, Embossers, Napkin and Core Machines, Letterpress and Flexographic Presses, Special Converting Machinery

PAPER CONVERTING MACHINE COMPANY
GREEN BAY, WISCONSIN

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For More Information Circle 11 on Reader Service Card

Transformation of the Weekly Newspaper

(Continued from Page 53)

possible to insert pages with one side printed in color on web offset presses and print type copy on the reverse side with the newspaper press.

At present there are approximately 10 dailies being printed entirely web offset. Representative of these dailies are: Arlington (Tex.) *Daily News-Texan;* Grand Prairie (Tex.) *Daily News-Texan;* Irving (Tex.) *News;* Pasadena (Tex.) *Citizen;* Glasgow (Ky.) *Daily Times;* St. Louis (Mo.) *Daily Record;* Baton Rouge (La.) *Daily Reveille;* Opelousas (La.) *Daily World,* and the Middletown (N. Y.) *Daily Record.*

The Texas newspapers are all printed by the Offset Process Co., Ft. Worth. The two *News-Texan* papers have a combined circulation of 11,300; while the Irving paper has a circulation of 8360. More dailies in the circulation range of 5000 to 30,000 are expected to adopt web offset.

Other publishers believed to be printing more than one newspaper by web offset are: Lloyd Hollister, Inc., Wilmette, Ill., Photo News, Long Island, N. Y.; Rotary Offset Printers, Anaheim, Calif.; Daily Record Co., St. Louis; Photojournals, Incorporated, Sandusky, O.; Tabloid Lithographers, Cranford, N. J.; Dispatch Newspapers, North Kansas City, Mo.; Bay State Offset, Winchester, Mass.; Tualatin-Yamhill Press, Inc., Hillsboro, Ore.; Bartash Publishing Co., Philadelphia; Culpeper Star-Exponent, Culpeper, Va.; Offset Printers, Lowell, Mass.; Valley Publishing Co., Kent, Wash.; and Tribune-Press, Gouverneur, N. Y.

A partial listing of weekly newspapers being published by web offset are: Encinitas (Calif.) *Coast Dispatch;* South Park (Calif.) *News;* Bradenton (Fla.) *Manatee Advertiser & Press;* Arlington (Mass.) *News;* Jaffrey (N. H.) *Monadnock Ledger;* Gouverneur (N. Y.) *Tribune-Press;* New York *Irish Advocate;* Toledo (Ore.) *Lincoln County Leader;* Pendleton (Ore.) *East Oregonian;* McMinnville (Ore.) *News-Register;* Forest Grove (Ore.) *News-Times;* Hillsboro (Ore.) *Argus;* Beaverton (Ore.) *Valley News;* Tigard (Ore.) *Times;* Warren (Pa.) *Observer;* Halton City (Tex.) *News-Texan;* Marysville (Wash.) *Globe;* Burien (Wash.) *Highline Times;* Kent (Wash.) *News-Journal;* Auburn (Wash.) *Globe-News;* Renton (Wash.) *Chronicle;* Cudahy (Wis.) *Reminder Enterprise;* Culpeper (Va.) *Star-Exponent;* Madison County (Va.) *Eagle,* and Greene County (Va.) *Record.*

Some of these newspapers are produced by the multiple publishers mentioned previously.

Perhaps one of the most unusual applications of web offset equipment for printing newspapers has been scheduled for 1961 installation at the Grit Publishing Co., Williamsport, Pa. The *Grit* is a nationally distributed tabloid weekly which has a circulation ranging from 825,000 to 1,100,000.

The web offset press which is to be installed is said to print 72 pages at a speed of 50,000 per hr. Potential speed of the press is claimed to be 65,000 per hr. The basic equipment is reported to include a unit which permits printing four colors on eight pages. In addition to this unit, four perfecting units will be included.

Although the reduction of the number of weeklies is remote, the possibilities of the reduction of the number of printing plants is very real. While letterpress will continue to be the most common method of printing weeklies and small dailies, offset, primarily web offset, will gain a substantial foothold. The economies of cold type composition, the production capabilities of the web offset press and the exciting possibilities of fine color and pictorial layouts are expected to contribute to the expansion of the offset process in newspaper applications. *Series Concluded*

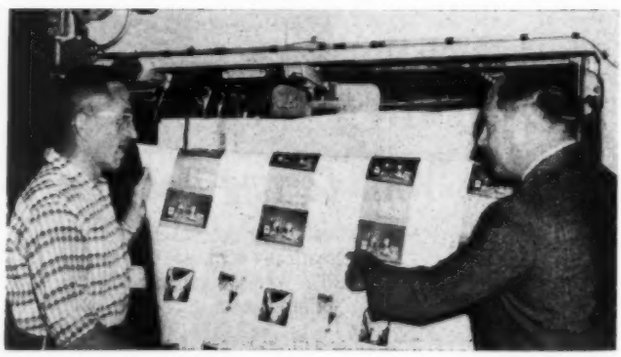

Photo of Cover Press Sheet Appears in Same Issue—Speedy action by the editorial staff of *Investor's Reader* and the production team of Western Printing and Lithographing Co. made it possible to include the above picture of the first cover sheet off the press in the same issue. The photo was used to illustrate an article featuring the growth of Harris-Intertype Corp.

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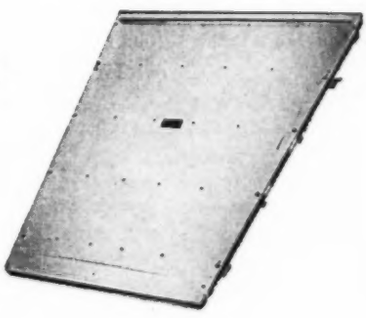

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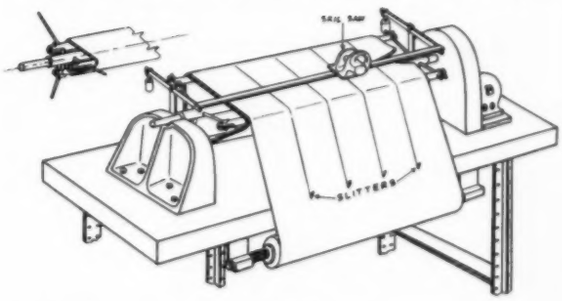

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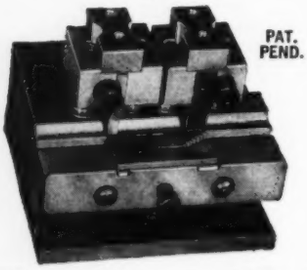

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Helpful Literature

(Continued from Page 42)

areas of press operation—feeding, registering, dampening, inking, printing and delivery. Circle No. 341 on Reader Service Card.

HEIDELBERG ROTARY FLATBED PRESS

Informative literature on the Heidelberg rotary flatbed press has been published by Heidelberg Automatic Presses. The press is available in sizes of 21 in. by 28 in. and 15 in. by 20½ in. Circle No. 335 on Reader Service Card.

TWO COLOR OFFSET PRESS

A bulletin describing the Miehle 25 two color offset press has been prepared by Miehle Company, Div. of Miehle-Goss-Dexter, Inc. The press handles sheets from 11 in. by 16 in. to 20 in. by 26 in. Its maximum running speed is said to be 7500 sheets per hr. Circle No. 336 on Reader Service Card.

ROLLFED OFFSET PRESS

The Tandemer rollfed offset press is the subject of literature prepared by Didde-Glaser, Inc. The press is modular in design and is recommended for both long and short runs. Circle No. 337 on Reader Service Card.

OFFSET PERFECTING PRESS

The Vanguard web offset perfecting press is the subject of a folder prepared by Cottrell Company, Div. of Harris-Intertype Corp. Designed for production of small weekly or daily newspapers, the press is built in 31 in. and 36 in. web widths. Circle No. 310 on Reader Service Card.

Bindery-Mailroom

THREE KNIFE TRIMMER

Information on the Accu-Shear, three knife trimmer is being offered by T. W. & C. B. Sheridan Co. The standard Accu-Shear has a capacity of 1⅜ in. thickness and operates at the maximum rate of 100 cuts per min. Circle No. 323 on Reader Service Card.

Miscellaneous

MONTGOMERY REPLACEMENT PARTS

A publication entitled Montgomery's *Bargain List* has been prepared by Montgomery Company, Inc. New, rebuilt and used replacement parts available for Graphic Arts machinery are listed in the publication. Circle No. 314 on Reader Service Card.

DOUBLE-FACED ADHESIVE MATERIALS

A price list of its line of double-faced adhesive coated materials has been issued by Morgan Adhesives Co. Circle No. 342 on Reader Service Card.

ROLLED STEEL FLOOR PLATE

Alan Wood Steel Co. has issued Bulletin AL-N5 to describe the A. W. Algrip abrasive rolled steel floor plate, which can be used as an independent flooring overlay. It is recommended for use wherever slipping hazards exist. Circle No. 344 on Reader Service Card.

STEEL STRAPPING CALCULATOR

A steel strapping calculator has been made available by Signode Steel Strapping Co. Seven types of problems for any of the 27 stock sizes and kinds of Signode steel strapping may be solved on the calculator. Among the problems which may be calculated on the instrument are the pounds of strapping needed for a given package size, total strapping necessary for a production run and cost-per-foot for each strapping variety. An instruction booklet accompanies the calculator. Circle No. 307 on Reader Service Card.

FACTORY EQUIPMENT HANDBOOK

Copies of a handbook dealing with various equipment for offices and factories are available from General Industrial Co. Circle No. 348 on Reader Service Card.

TRUCK WITH 6000 LB. CAPACITY

A four page bulletin, SS-44, giving details of the electric Utilitruc 6024 has been issued by Clark Equipment Co. The truck has a capacity of 6000 lbs. Circle No. 350 on Reader Service Card.

HUMIDITY CONTROL SYSTEMS

A booklet listing humidity control systems employed by various printing and paper firms has been made available by West Virginia Pulp and Paper Co. In addition to the booklet, the company offers a complete list of manufacturers of humidification equipment. Circle No. 343 on Reader Service Card.

OFFSET INK COLOR MATCHER

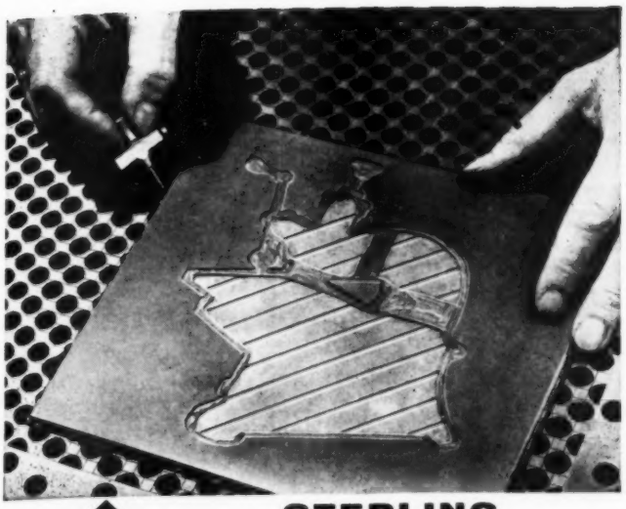
A color matcher for offset inks is available from Kohl & Madden Printing Ink Corp. The pressroom aid is an 11 in. by 21 in. chart that folds into a flat envelope for easy carrying or storage. Thirteen standard colors appear on the chart. Inks are shown on coated and uncoated stock. Formula numbers for 142 colors that can be mixed from the colors shown are listed. Circle No. 306 on Reader Card.

CALENDAR ELECTROTYPE PLATES

A bulletin illustrating the electrotype plates and reproduction proofs of calendars for any month or year is offered by Cobb Shinn. The calendar electrotypes are available in a variety of sizes and in groups of one to 24 months. Circle No. 313 on Reader Service Card.

U. S. GAUGE INSTRUMENTS

Pressure gauges, temperature indicators and control instruments are described in a bulletin offered by U. S. Gauge Div., American Machine and Metals, Inc. Included in the literature are bourdon tube type pressure gauges, dial and glass tube thermometers, and indicating and recording control instruments. Circle No. 317 on Reader Service Card.



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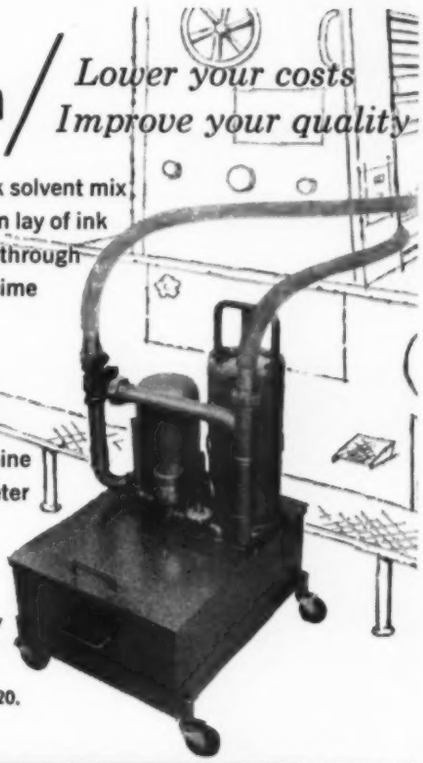

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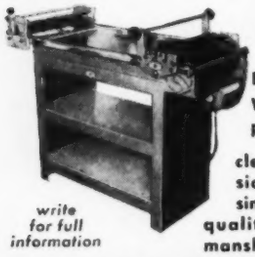

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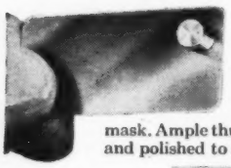

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Alan Wood Steel Co. 22
American Publishers' Supply, Inc. 107
American Steel Chase Co. 28
American Type Founders Co., Inc. 75, 79
Anchor Chemical Co., Inc. 97
Ansco Div., General Aniline & Film Corp. 2
Appleton Coated Paper Co. 14

Bahnson Company 28
Beveridge Paper Co. 105
Bingham's Son, Sam'l, Mfg. Co. 21
Booth, E. A., Rubber Co. 114
Brooks & Perkins, Inc., Magplate Div. .. 8

Cambridge Instrument Co. 113
Capital Tool & Mfg. Co. 111
Carlson, Chesley F., Co. 114
Central Compounding Co. 114
Certified Dry Mat Corp. 33
Chandler & Price Co. 36
Chemco Photoproducts Co., Inc. 13

Dexter Company, The, Div. Miehle-Goss-Dexter, Inc. 44
Didde-Glaser, Inc. 15

Eastern Fine Paper & Pulp Div., Standard Packaging Corp. 17, 18
Eastern Newspaper Supply, Inc. 93
Eastman Kodak Co. 69
Education Council of the Graphic Arts Industry, Inc. 64
Empire Laboratories, Inc. 102

Fairchild Graphic Equipment, Div. Fairchild Camera & Instrument Corp. .. 87
Fecker, J. W., Co. 113
Fisk Industries 112
Flint Ink Corp. 96

General Electric Co. 43
General Strapping Corp. 108
Gifford-Wood Co. 99
Goss Company, The, Div. Miehle-Goss-Dexter, Inc. 56, 57
Griffiths, John, Co., Inc. 115

Hammond Machinery Builders, Inc. ..... Inside Back Cover
Harris-Seybold, Div. Harris-Intertype Corp. 71
HCM Corporation 25
Heidelberg Automatic Presses 7
Hoe, R., and Co. 26, 27
Huber, J. M., Corp. 20

Imperial Type Metal Co. 73, 95
Interchemical Corporation, Printing Ink Div. 38
Intertype Company, Div. Harris-Intertype Corp. ..... Outside Back Cover

Jampol Corporation 113

Kemp, C. M., Mfg. Co. 99
Kimberly-Clark Corp. 76, 77
Korn, Henry P., Associated, Inc. 82
Korthe Engineering Co. 111

Lanston Industries, Inc. 16
Lawson Corporation, The, Div. Miehle-Goss-Dexter, Inc. 31
Ludlow Typograph Co. 9

Main, Chas. T., Inc. 107
Master Sales & Service Corp. 34
Matrix Contrast Corp. 98
Mergenthaler Linotype Co. 40
Midwest Publishers' Supply Co. 112
Miehle Company, Div. Miehle-Goss-Dexter, Inc. 23
Miller Printing Machinery Co. 3
Monomelt Co., The, Inc. 104
Montgomery Company, Inc. 111
Morrison Company 94

National Cash Register Co. 41
Nolan Corporation 6, 114, 115
nuArc Company, Inc. 24

Offen, B. and Co. 115
Ohio Blow Pipe Co. 12
Oxy-Dry Sprayer Corp. 89

Paper Converting Machine Co. 109
Paper Manufacturers Co. 37
Pate Company 115
Potdevin Machine Co. 109
Printing Machinery Co. 113
PRINTING PRODUCTION 4

Radio Corporation of America 30
Reeves Bros., Inc. 103
Richards, J. A., Co. 106
Roberts Numbering Machine Div., Heller Roberts Mfg. Corp. 105
Rolled Plate Metal Co. 90
Rouse, H. B., & Co. 10

Scott, Walter, and Co. 32
Shaffstall Equipment, Inc. 110
Sheridan, T. W. and C. B., Co. 19, 81, 85
Sta-Hi Corp. 1
Standard Process Corp. 109
Star Parts, Inc. .....Inside Front Cover, 101

Tenak Products Co. 11
Tingue, Brown & Co. 100
Tri-Q, Incorporated 111

U. S. Steel Supply Div., United States Steel Corp. 35

Valley Manufacturing Co. 109
Vandercook & Sons, Inc. 115
Virkotype Corporation 106

Wetter Numbering Machine Corp. 103
Wood Flong Corp. 39
Wood Newspaper Machinery Corp. 29
Worthington, Emory W., and Associates .. 115

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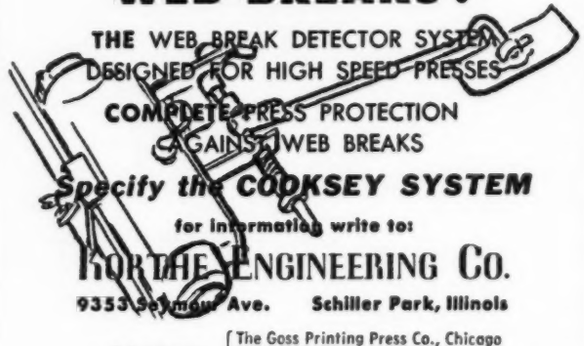

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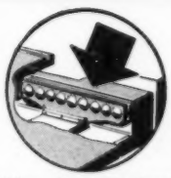

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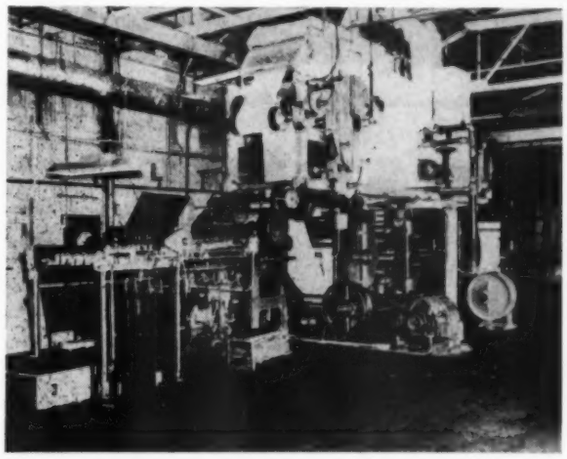

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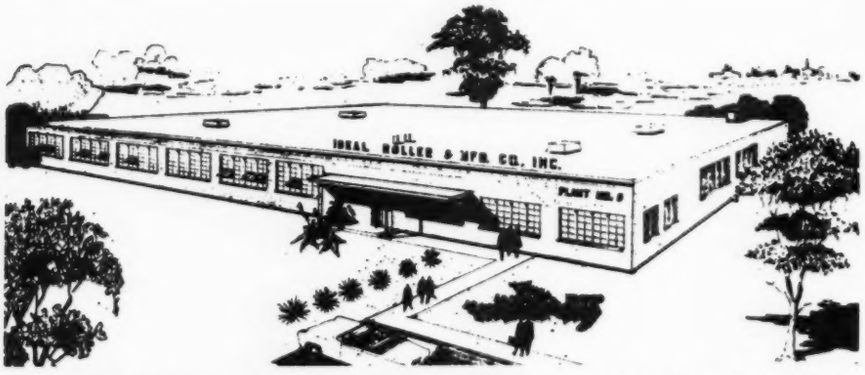
Film Shows Printing Industry at Work—A film showing the printing industry at work was recently presented to Merkle Press, Inc., Washington, D. C., by the AFL-CIO. Made at Merkle, the film is part of the *America at Work Series*. Left to right, are: David Porterfield, Jr., Arrow Service, president, PIA of Washington, D. C.; Edgar A. Merkle, president, Merkle; Arden Weisenberger, president, Pressmen, Press Assistants and Offset Workers; Don Gregary, AFL-CIO.

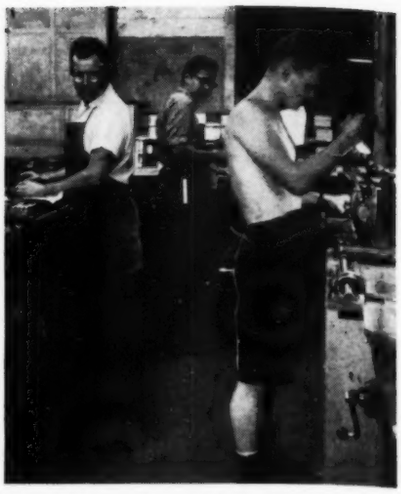
GRAPHIC VIEWS

of the Printing Industry



Ideal Roller Constructs New England Plant—Shown is an architect's rendering of the new plant of the Ideal Roller & Mfg. Co., which is currently under construction. Scheduled to be opened sometime in 1960, the plant is located in Marlboro, Mass., near Boston, and will be under the supervision of Edward Bellone.

Lanston Enters Joint Ownership Agreement—Lanston Industries, Inc., has entered an agreement giving it joint ownership of Societa Cograf, S.p.A., Turin, Italy, with Societa Nebiolo, S.p.A., also of Turin. Under the agreement, Lanston will market the typesetting machine, Nebitype, in the U. S. The machine was recently perfected by Societa Cograf. Left to right, are: Carl C. Sorensen, vice president, and Thomas J. Reardon, treasurer, both of Lanston; Donato Cattaneo, Societa Nebiolo, and William P. Hunt, chairman, Lanston.



Comp Beats Heat with Bermudas—When the temperature at the Kalispell (Mont.) *Daily Inter Lake* shop soared to 100 deg. last summer, Compositor Wally Fournier, right, dared to don bermudas for relief. Compositors, Tom Hawkins, left, and Lee Weigum watch Fournier with envy.

Belles and Beaux Dance for Craftsmen—These pretty belles from Atlanta and handsome beaux from Georgia Tech entertained Craftsmen at the Atlanta convention last August.

Printer Sponsors Engineering Apprenticeship—Raymond W. Besemer, recently completed a four-year engineering apprenticeship program sponsored by Eureka Specialty Printing Co., Scranton, Pa. The program was developed by Eureka in cooperation with eight other firms.

Hammond

MODEL CMP 1200

Combination Melting Pot

MODEL CMP-1200 WITH EASY KASTER 8 AND PIG MOLDER.

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PRINTING PRODUCTION

This Issue:

Greeting Card Printing

Litho's Impact Felt

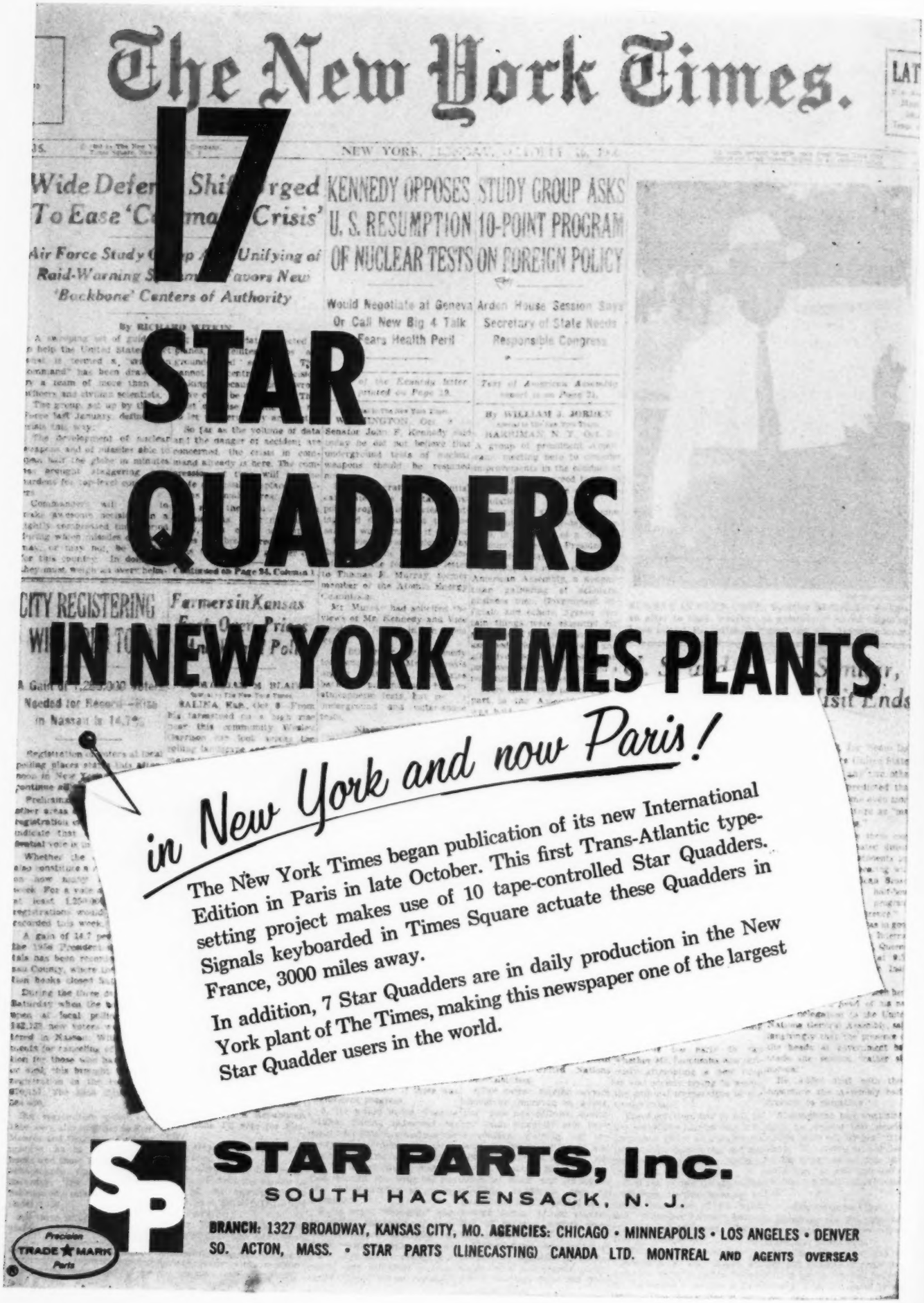
Work Saving Techniques

How to Register Overlays

Engravers Check Controls

Yours Truly
Printing Production

THE PRODUCTION MAGAZINE FOR PRINTERS AND LITHOGRAPHERS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KENNEDY OPPOSES U. S. RESUMPTION OF NUCLEAR TESTS
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17
STAR
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in New York and now Paris!
The New York Times began publication of its new International Edition in Paris in late October. This first Trans-Atlantic type-setting project makes use of 10 tape-controlled Star Quadders. Signals keyboarded in Times Square actuate these Quadders in France, 3000 miles away.
In addition, 7 Star Quadders are in daily production in the New York plant of The Times, making this newspaper one of the largest Star Quadder users in the world.
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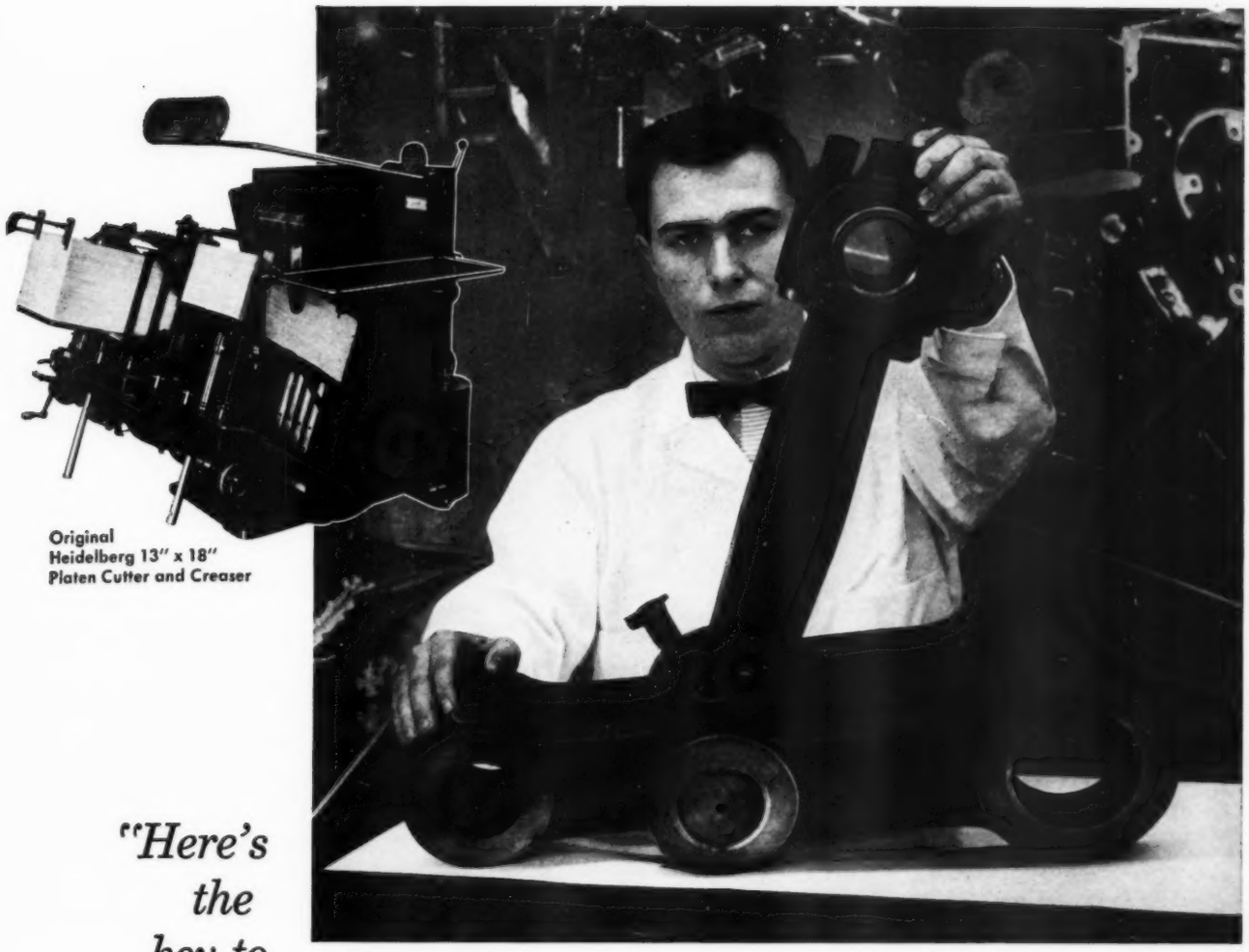

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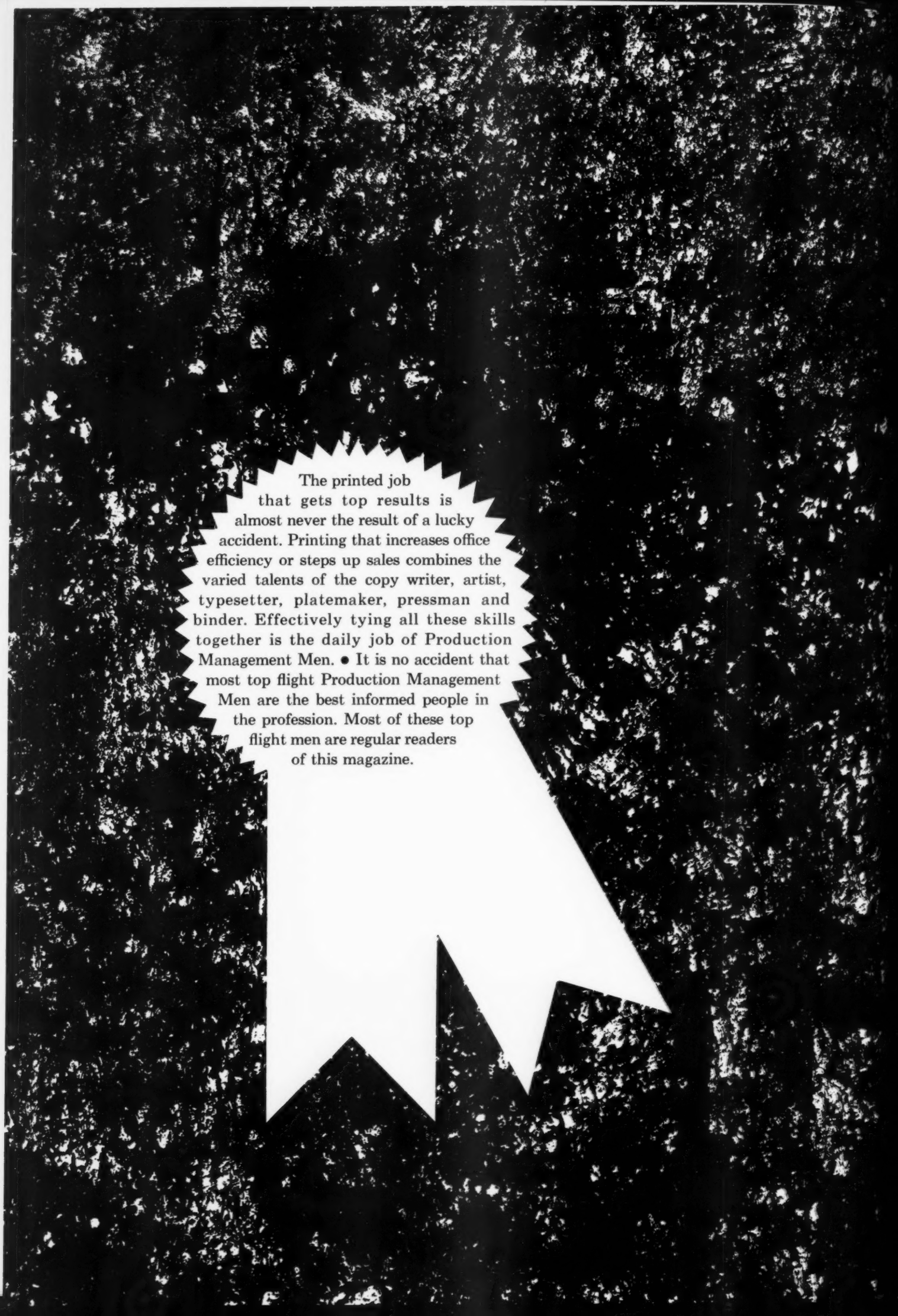
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